



TETRA TECH, INC.

February 21, 2007

Mr. Stan Sternberg
Montana Department of Transportation
Environmental Services Bureau
2701 Prospect Avenue
P.O. Box 201001
Helena, Montana 59620-1001

**RE: Report of Findings
Potentially Asbestos-Containing Soil in MDT Rights of Way, Traction Sand and
Road Aggregate Sources, Collected Road Sweepings, and Sampled Worker Air
Space During Routine Maintenance Activities
Libby, Montana
MDT Task Order No. 605; Tetra Tech No. 1156561296**

Dear Mr. Sternberg:

The Montana Department of Transportation (MDT) requested in their letter (MDT, 2006a) to Mr. Aaron Shewman of Tetra Tech, Inc. (Tetra Tech, formerly Maxim Technologies) dated April 8, 2006, that Tetra Tech assist them with asbestos sampling, analysis and related industrial hygiene services in the Libby area. In response, Tetra Tech developed the work plan and cost estimate subsequently submitted to MDT on May 22, 2006 (Maxim, 2006), and approved in their letter to Mr. Aaron Shewman dated May 26, 2006 (MDT, 2006b). In accordance with the work plan, Tetra Tech developed a sampling and analysis plan (SAP) that outlined the methods for determining sample locations and procedures for sampling potentially asbestos-containing soil in the Libby area as well as aerosol dust emissions resulting from road sweeping operations and from other select MDT maintenance personnel activities (Tetra Tech, 2006; Appendix C). Appendices to this report include A which contains the report figures, B the tables, C the sampling and analysis plan, D the approved MDT encroachment permit and traffic control plan, E the applicable Libby area standard operating procedures, F soil and air sampling field forms, G a compact disk of field photographs, H a compact disk containing laboratory reports, and I references.

SAMPLE COLLECTION SUMMARY

Bulk Soil Sampling

Soil samples were collected from MDT Rights of Way (ROWs) within an approximate 5-mile radius of the Town of Libby (Figure 1; Appendix A), surface soil at the MDT Libby Maintenance Section Facility (Figure 2), and road sweepings piles from two road sweepers (Figure 2) from July 11, 2006 through July 28, 2006. All sample locations were surveyed with a resource grade global positioning system unit.

Soil samples were collected within 10-feet of the pavement boundary at approximately 0.25 mile intervals along both sides of selected ROWs within an approximate 5-mile radius of the Town of Libby. The following MDT ROWs were sampled (Figure 1):

- MT 37 (P-33), MP 0.0 through 5.5 (one-mile intervals instead of 0.25 mile intervals at duplicate locations as those identified in CDM, 2006)
- MT 37 (P-33), MP 5.5 through 9.5 (0.25 mile intervals)
- US 2 (N-1), milepost (MP) 28.0 through 38.0
- River Road (State Highway S-260), MP 0.0 through 4.0
- Farm to Market Road (State Highway S-482), MP 0.0 through 2.5
- Pipe Creek Road (State Highway S-567), MP 0.0 through 4.5

Soil samples were also collected from 10 of the 17 selected sources (pits/stockpiles) of traction sand and road aggregate identified by MDT (Figure 1). Samples were not collected from the remaining seven pits identified by MDT because the pits had either already been reclaimed or access was denied by the landowner.

Sixteen soil samples were collected from the MDT Libby Maintenance Section facility. Sample locations were selected in an approximate grid fashion to best represent the entire facility (Figure 2). At the time of sample collection, a new building was being constructed on the north portion of the property making soil sample collection impossible in that area. Each sample location was marked in the field on the facility map, the location of existing site features was confirmed, and missing features were located relative to the two existing site buildings using a resource-grade global positioning system unit.

One soil sample was collected from a random location in each of two road sweepings (sand) piles collected by MDT during road sweeping activities. The correct sweepings pile locations were identified by local MDT maintenance personnel. The sweepings piles were staged at the Libby Maintenance Section Facility (Figure 2). Sweepings contained in the piles were deposited by two Libby facility sweepers operating in the following two areas:

- US 2 and MT 37 within the Town of Libby limits
- MT 37 from the Kootenai River Bridge to the Rainy Creek Road turnoff

Before work within MDT ROWs began, Tetra Tech applied to MDT for an encroachment permit to collect samples within the ROW of the highways in the vicinity of Libby. The encroachment permit included a traffic control plan. Tetra Tech obtained MDT approval of the permit and plan prior to initiation of sample collection (Appendix D). Collected soil samples were submitted to the Camp, Dresser, and McKee (CDM) laboratory in Denver, Colorado for preparation in accordance with standard operating procedure (SOP) ISSI-LIBBY-01 before being shipped on to EMSL, Inc. in Westmont, New Jersey for polarized light microscopy (PLM) analysis for asbestos, including Libby Amphibole (LA) Asbestos, in accordance with SOP SRC-LIBBY-03 (Revision 1) (Appendix E).

Air Sampling

From July 26 through 28, 2006, air samples were collected as part of negative exposure assessments (NEAs) conducted during several routine MDT maintenance activities performed along MT 37. Activities included guardrail replacement, road sweeping using one broom-style (Elgin Broom Bear) and one vacuum-style (Elgin Crosswind) vehicle, ditching, and mowing. Four air sampling pumps and cassettes were placed on each piece of equipment. One air sampling pump was placed on each side, including left (driver), right (passenger), front, and rear. Additional pumps were placed, one on the operator, and one on each laborer (if present) to sample the fugitive dust emitted during the routine activities. Air sampling was conducted on each piece of equipment during operation and sampling cassettes were replaced at a maximum of 3.25 hour intervals during each daily maintenance work shift in an attempt to prevent overloading of the internal filter.

On July 26, 2006, air samples were collected on the rubber-tired backhoe during the work that was completed between mileposts 6.4 and 8.5. On July 27, 2006, samples were collected from the two road sweepers (one broom and one vacuum operated) during the sweeping along a portion of MT 37 between mileposts 2.3 and 4.6, and 4.5 to 5.5, respectively. On July 28, 2006, samples were collected during ditching (rubber-tired backhoe) and mowing on MT 37 between mileposts 4.3 and 5.5, and 0.8 and 4.3, respectively.

All collected air samples were submitted to EMSL, Inc. in Westmont, New Jersey for polarized light microscopy (PLM) analysis for asbestos, including Libby Amphibole (LA) Asbestos, in accordance with SOP SRC-LIBBY-03 (Revision 1).

SAMPLE RESULTS SUMMARY

Bulk Soil Sampling

Soil sample results are shown on Figures 2 through 13 and in Table 1 (Appendix B). Results indicate asbestos was detected in only seven samples. All seven samples where asbestos was detected were collected from the gravel pit (Pit 5, Kootenai Development Company; Figure 11) located along the gravel road to the former W.R. Grace Vermiculite Mine. Asbestos that was detected in the sediment samples in this gravel pit may have been naturally deposited prior to any human disturbance of the area. Therefore, the asbestos detections may have been the result of natural historic erosion and are not necessarily from the historic mining activities on Vermiculite Mountain or the on-going remediation activities in Libby. All other data indicate asbestos was not detected in soil samples collected from the Libby Maintenance Facility or along the ROWs of Highways 2, 37, 260, 482, and 567. Although asbestos was not detected, visible suspected vermiculite material was observed at several locations, including:

- U.S. Route 2, mile post 36, location 135 (Figure 6);
- MT Route 37, mile post 6, location 201 (Figure 7);
mile post 8, location 226 (Figure 8);
- Plum Creek Timber Road Aggregate Pit, locations 256 and 258 (Figure 10);
- REMP Sand & Gravel North Pit, locations 259 and 262 (Figure 10);
- Kootenai Development Company Pit, locations 100 and 101 (Figure 11);

- Ward Crushing Pit, location 266 (Figure 12); and
- Mike Parker Pit, locations 272 and 273 (Figure 12).

Asbestos soil sampling field forms are contained in Appendix F and a compact disk containing field photographs of each sampling location is included in Appendix G.

Air Sampling

Negative exposure assessment air sample results are shown on Figures 14 and 15 and in Table 2 (Appendix B). Although some samples were overloaded with airborne fiber material and could not be read by phase contrast microscopy (PCM), the readable sample exhibiting the highest PCM value of 0.075 fibers per cubic centimeter (f/cc) was collected on the front of the mower during mowing. Asbestos soil sampling field forms are contained in Appendix F. This result is below the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) of 0.1 f/cc. Because we desired to know the asbestos fiber concentrations and type of Libby Amphibole asbestos present in each sample, if any, transmission electron microscopy (TEM) analysis was also completed. The highest TEM result was for the samples collected on the front of the mower during mowing and was equivalent to the PCM result (0.075 f/cc; Tremolite/Actinolite) for that sample. Due to the low air sample volumes resulting from the short duration of the activities sampled and the inherent dusty conditions, the limit of laboratory detection for TEM analyses ranged from as low as 0.004 f/cc to 0.026 f/cc. The highest detection limit of 0.026 f/cc is one order of magnitude below the PEL of 0.1 f/cc.

The highest result for a sample collected on MDT maintenance personnel during completion of the aforementioned maintenance tasks was 0.045 f/cc collected on the loader operator during ditching. Although this result indicates exposure to airborne asbestos fibers, the value is less than half the PEL of 0.1 f/cc.

SUMMARY AND CONCLUSIONS

Soil sample results indicate asbestos was detected in only seven of the 284 samples collected as part of this work. All seven samples where asbestos was detected were collected from the gravel pit (Pit 5, Kootenai Development Company; Figure 11) located along the gravel road to the former W.R. Grace Vermiculite Mine. Asbestos that was detected in the sediment samples in this gravel pit may have been naturally deposited prior to any human disturbance of the area. Therefore, the asbestos detections may have been the result of natural historic erosion and are not necessarily from the historic mining activities on Vermiculite Mountain or the on-going remediation activities in Libby. All other data indicate asbestos was not detected in soil samples collected from the Libby Maintenance Facility or along the ROWs of Highways 2, 37, 260, 482, and 567.

Air sample results indicate that although the asbestos fiber concentration results for all samples collected and analyzed during the NEAs were below the OSHA PEL of 0.1 f/cc, Tetra Tech recommends MDT maintenance personnel conducting these tasks don personal protective equipment (PPE) including disposable Tyvek-type coveralls and ½-face negative-pressure air purifying respirators equipped with P100 filters. This PPE will reduce the potential for asbestos fibers to be carried home with the worker

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and reduce the inhalation exposure to asbestos fibers. Additionally, we recommend the MDT personnel who will be wearing this PPE be trained in the proper maintenance, use, and limitations of the PPE.

Respectfully Submitted,



for

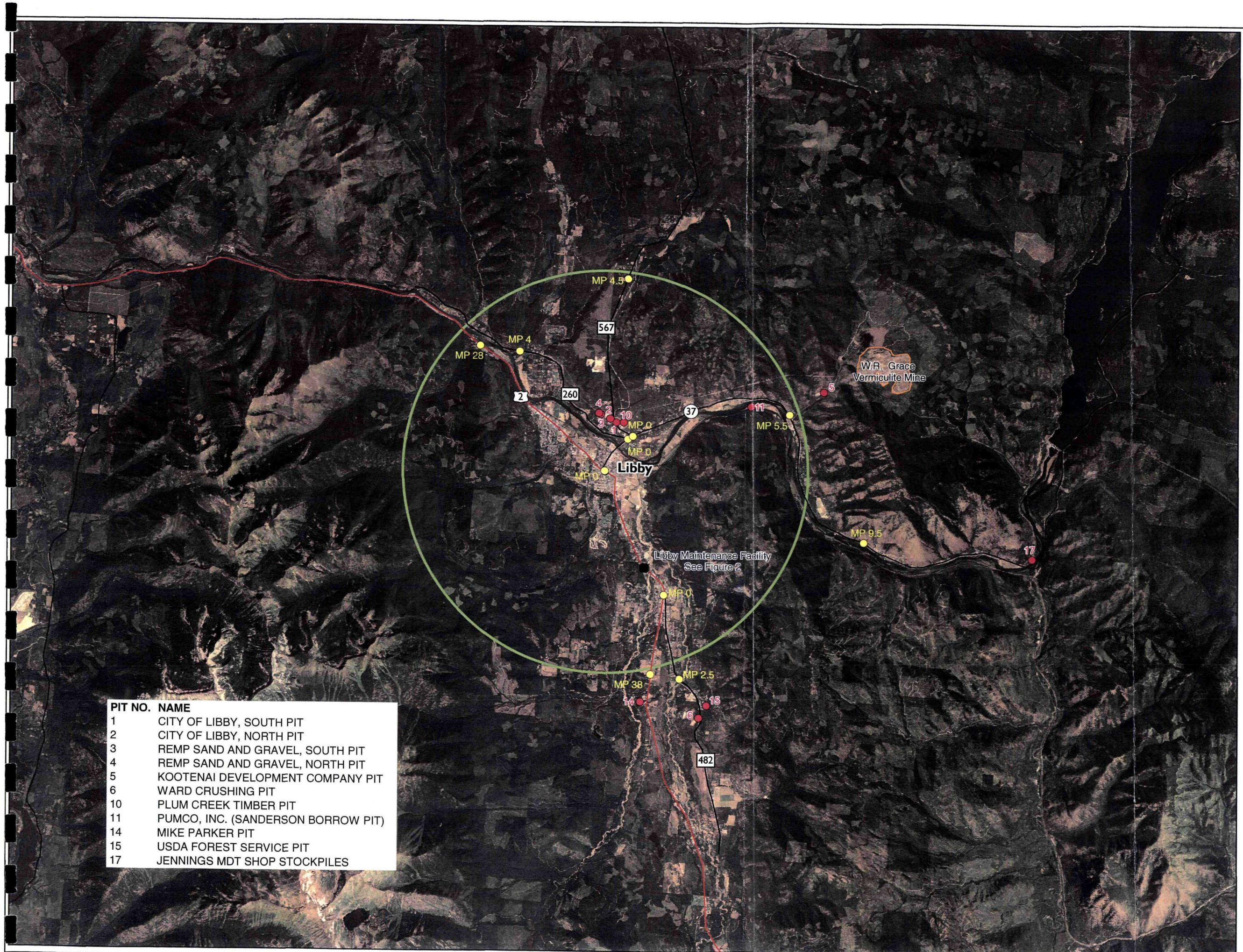
Aaron Shewman, P.E.
Project Coordinator



Ryan C. Behrends
Environmental Scientist

Appendix:	A	Figures
	B	Tables
	C	Sampling and Analysis Plan
	D	MDT Encroachment Permit and Traffic Control Plan
	E	Applicable Libby Area Standard Operating Procedures
	F	Soil Sampling Field Forms
	G	Compact Disk of Field Photographs
	H	Compact Disk of Laboratory Reports
	I	References

APPENDIX A
FIGURES



PIT NO.	NAME
1	CITY OF LIBBY, SOUTH PIT
2	CITY OF LIBBY, NORTH PIT
3	REMP SAND AND GRAVEL, SOUTH PIT
4	REMP SAND AND GRAVEL, NORTH PIT
5	KOOTENAI DEVELOPMENT COMPANY PIT
6	WARD CRUSHING PIT
10	PLUM CREEK TIMBER PIT
11	PUMCO, INC. (SANDERSON BORROW PIT)
14	MIKE PARKER PIT
15	USDA FOREST SERVICE PIT
17	JENNINGS MDT SHOP STOCKPILES

Legend

Libby Maintenance Facility

Traction Sand and Gravel

Aggregate Pit/
Stockpile Sources

Milepost (MP)

U.S. Highway

State & Secondary Highway

5 Mile Radius

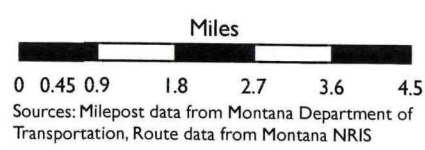
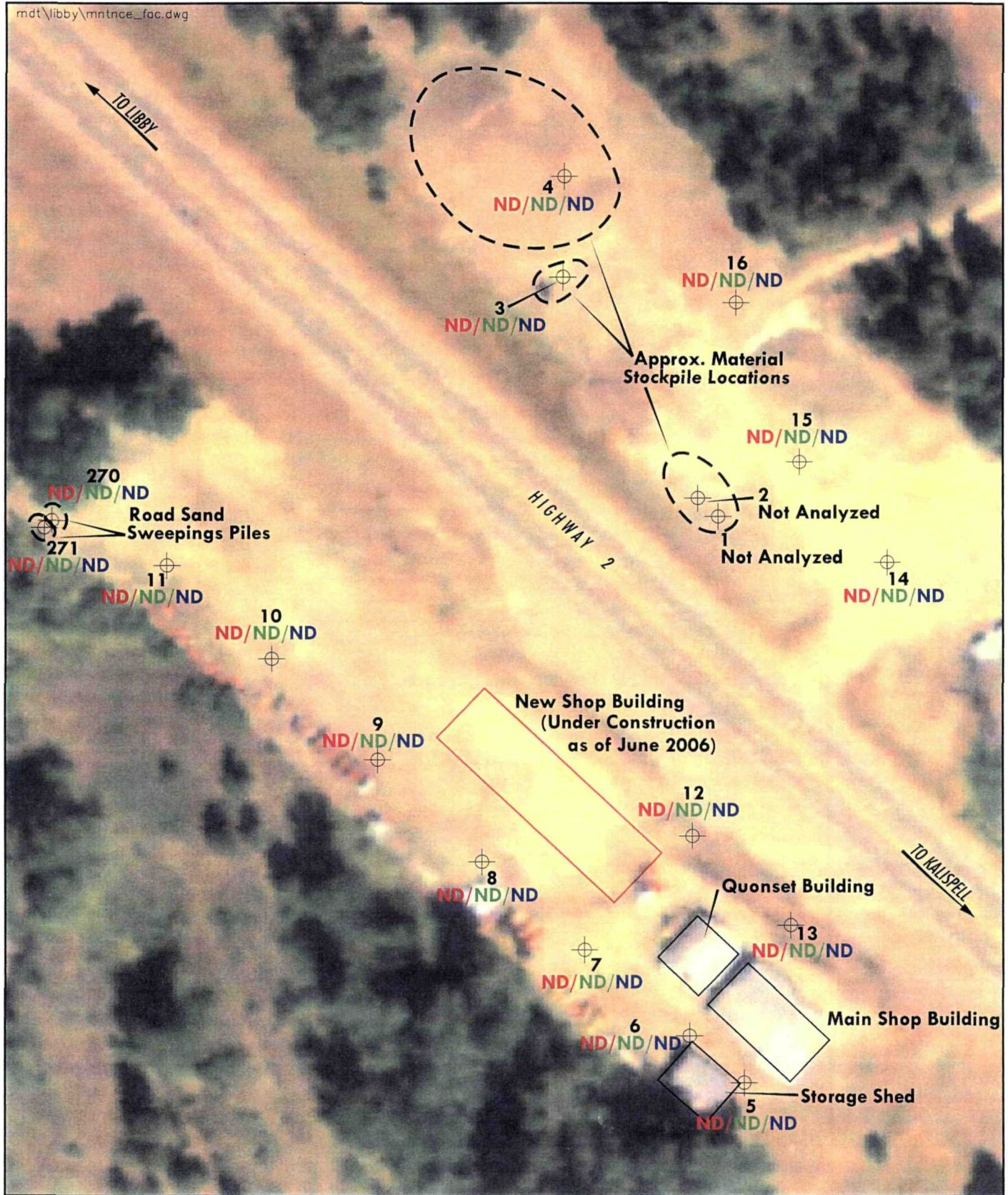


Figure 1
Location Map
Report of Findings
Libby, Montana



0 Feet 100



Sample Location
ND (Not Detected)



6561296.100

Sample Identifier

Libby/ Amphibole	Other/ Amphibole	Chrysotile
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Site Map
Libby Maintenance Section Facility
Libby, Montana
FIGURE 2



Legend

- ⊕ Sample Locations
- ND (Not Detected)
- ⊕ Sample Locations
- Trace $\geq 0\% < 0.2\%$
- ⊕ Sample Locations $\geq 0.2\% < 1\%$
- Milepost (MP)
- No Vermiculite Visually Observed Unless Noted By *

Label Definition

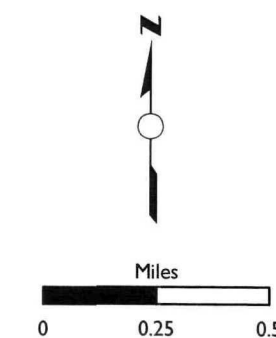
Sample Identifier

Libby / Other / Chrysotile

Amphibole / Amphibole

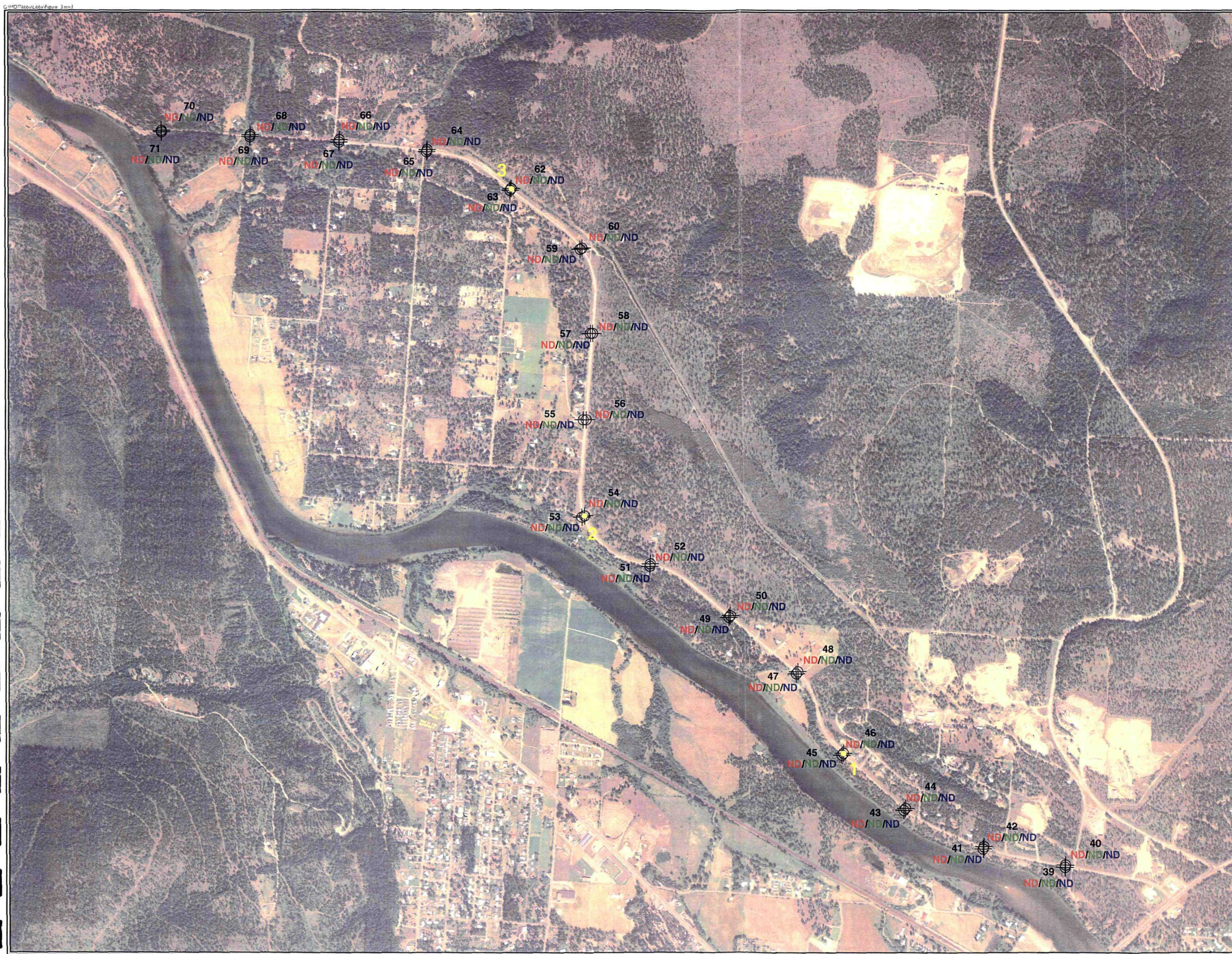


Area of Interest



Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

Figure 3
Pipe Creek Road (U.S. Route 567)
Soil Sample Locations and Results
Libby, Montana



Legend

- ⊕ Sample Locations
ND (Not Detected)
- ⊕ Sample Locations
Trace $\geq 0\% < 0.2\%$
- ⊕ Sample Locations $\geq 0.2\% < 1\%$
- Milepost (MP)
- No Vermiculite Visually
Observed Unless Noted By *

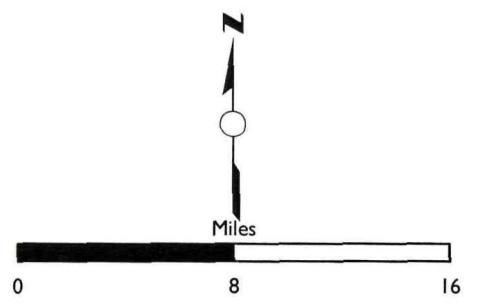
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Sample Identifier

Libby / Other / Chrysotile
Amphibole Amphibole

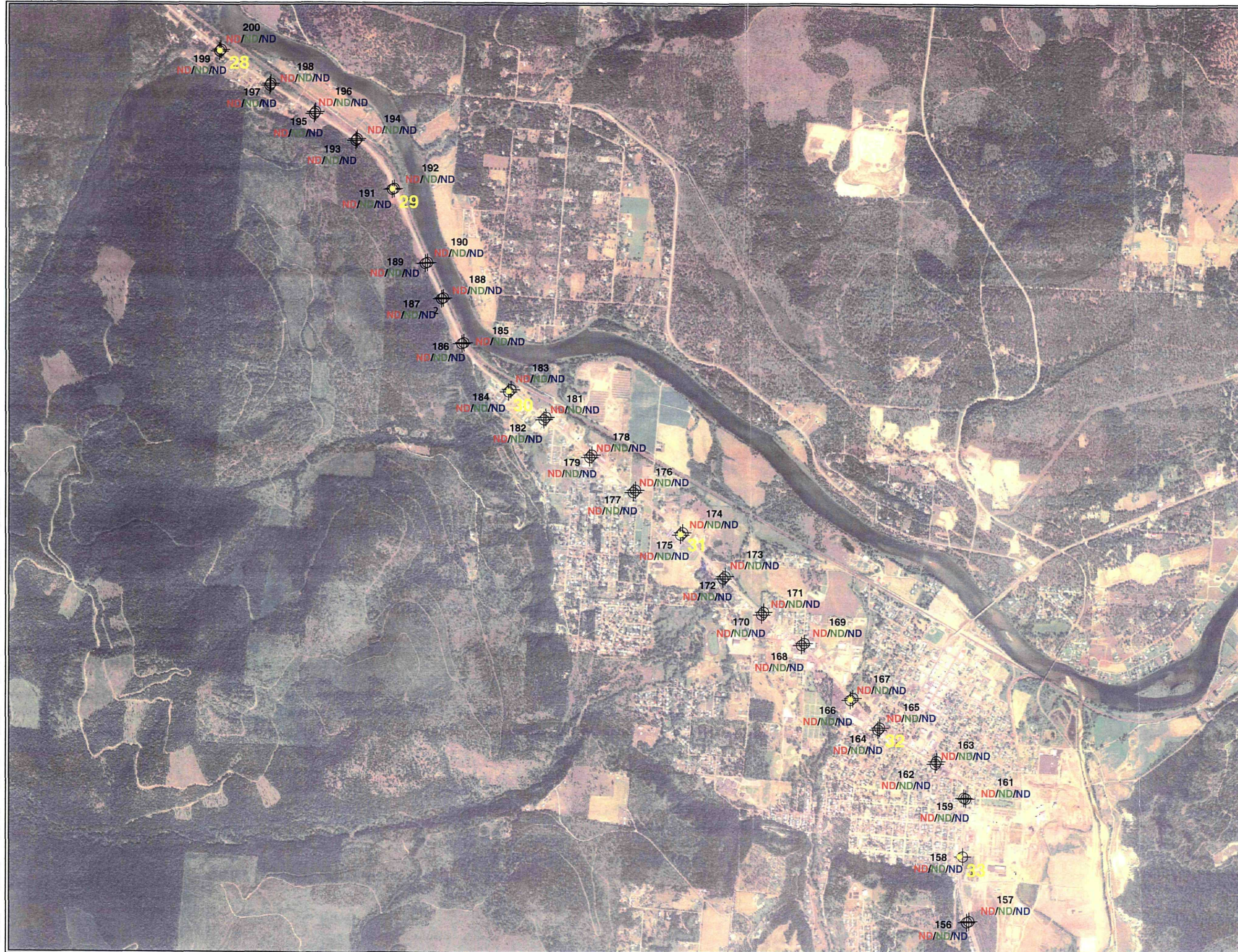


Area of Interest



Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

Figure 4
River Road (U.S. Route 260)
Soil Sample Locations and Results
Libby, Montana



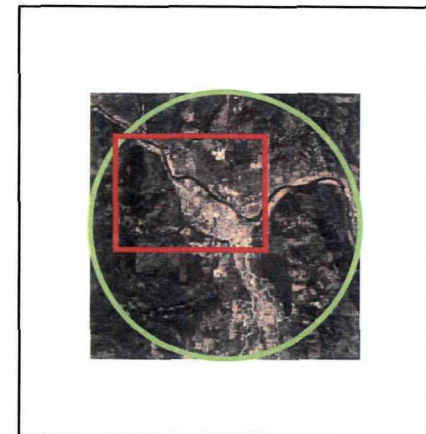
Legend

- ⊕ Sample Locations
ND (Not Detected)
- ⊕ Sample Locations
Trace $\geq 0\% < 0.2\%$
- ⊕ Sample Locations $\geq 0.2\% < 1\%$
- Milepost (MP)
- No Vermiculite Visually Observed Unless Noted By *

Label Definition

Sample Identifier

Libby / Other / Chrysotile
Amphibole Amphibole



Area of Interest

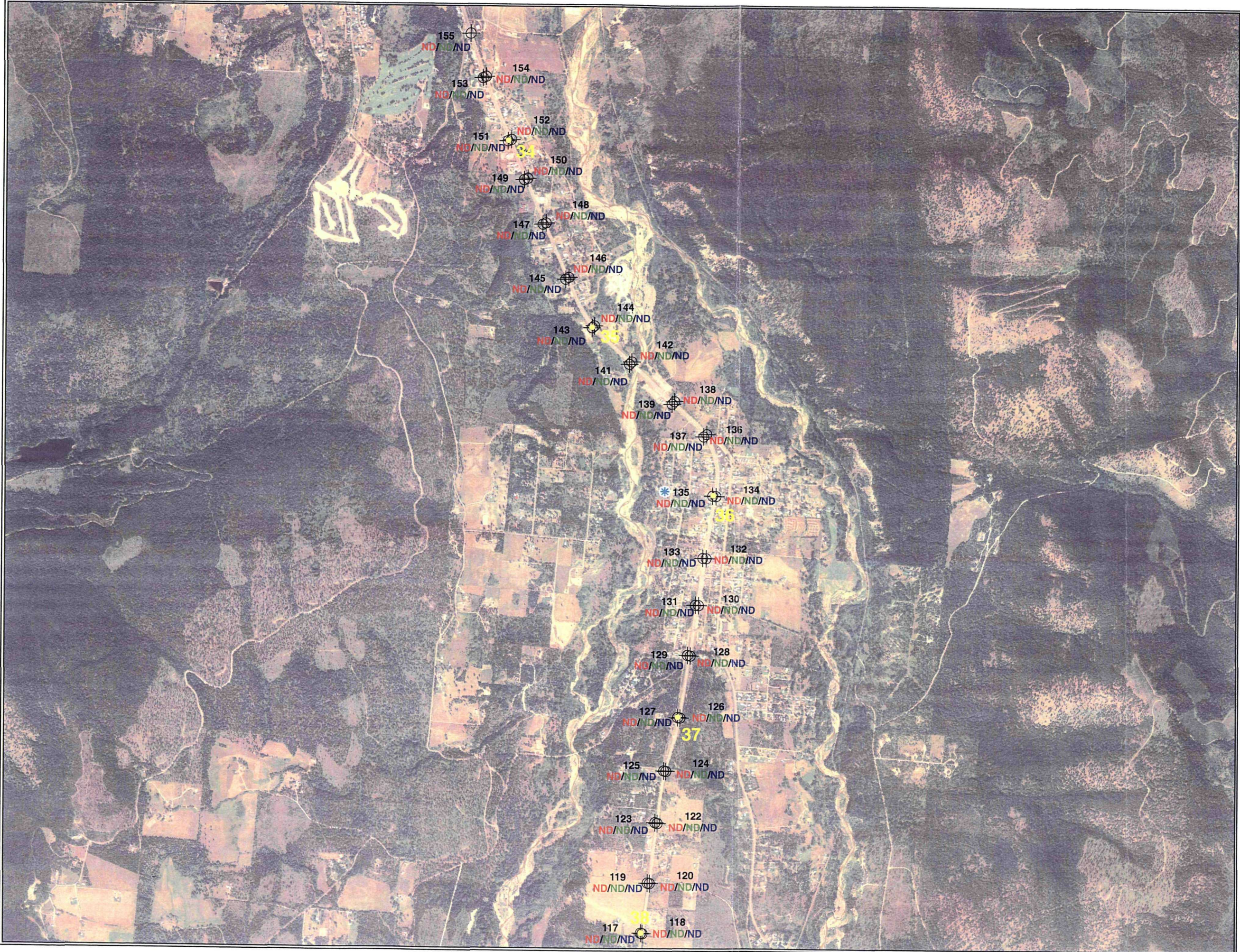
N

Miles

0 0.25 0.5

Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

Figure 5
U.S. Route 2
Soil Sample Locations and Results
Libby, Montana



Legend

- ⊕ Sample Locations
ND (Not Detected)
- ⊕ Sample Locations
Trace $\geq 0\% < 0.2\%$
- ⊕ Sample Locations $\geq 0.2\% < 1\%$
- Milepost (MP)
- No Vermiculite Visually
Observed Unless Noted By *

Label Definition

Sample Identifier

Libby / Other / Chrysotile
Amphibole Amphibole

Area of Interest

Miles

0 0.25 0.5

Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

Figure 6
U.S. Route 2
Soil Sample Locations and Results
Libby, Montana



Legend

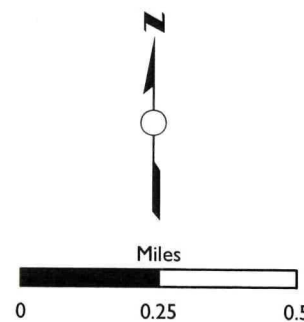
- Sample Locations ND (Not Detected)
- Sample Locations Trace $\geq 0\% < 0.2\%$
- Sample Locations $\geq 0.2\% < 1\%$
- Milepost (MP)
- No Vermiculite Visually Observed Unless Noted By *

Label Definition

Sample Identifier
 Libby / Other / Chrysotile
 Amphibole Amphibole



Area of Interest



Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

Figure 7
 MT Route 37
 Soil Sample Locations and Results
 Libby, Montana



Legend

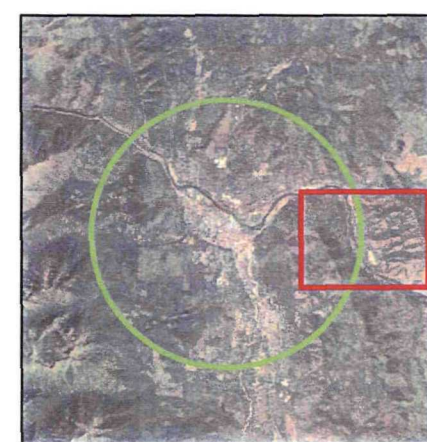
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- ⊕ Sample Locations Trace $\geq 0\% < 0.2\%$
- ⊕ Sample Locations $\geq 0.2\% < 1\%$
- Milepost (MP)
- No Vermiculite Visually Observed Unless Noted By *

Label Definition

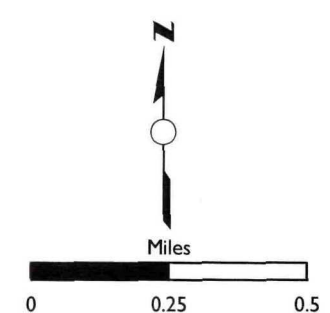
Sample Identifier

Libby / Other / Chrysotile

Amphibole Amphibole



Area of Interest



Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

Figure 8
MT Route 37
Soil Sample Locations and Results
Libby, Montana



Legend

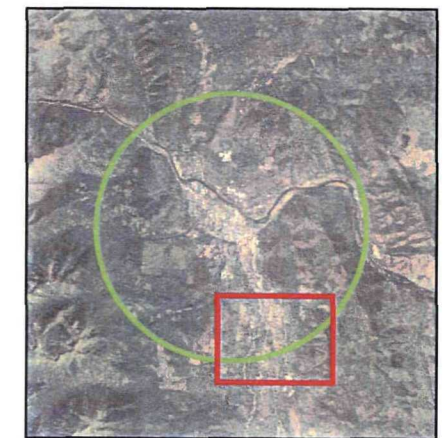
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- ⊕ Sample Locations Trace $\geq 0\% < 0.2\%$
- ⊕ Sample Locations $\geq 0.2\% < 1\%$
- Milepost (MP)
- No Vermiculite Visually Observed Unless Noted By *

Label Definition

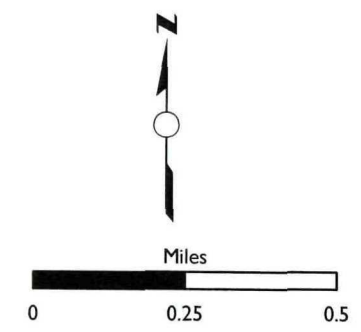
Sample Identifier

Libby / Other / Chrysotile

Amphibole Amphibole



Area of Interest



Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

Figure 9
Farm to Market Road
(U.S. Route 482)
Soil Sample Locations and Results
Libby, Montana



Legend

- ⊕ Sample Locations
- ⊕ ND (Not Detected)
- ⊕ Sample Locations
- ⊕ Trace $\geq 0\% < 0.2\%$
- ⊕ Sample Locations $\geq 0.2\% < 1\%$
- Milepost (MP)
- No Vermiculite Visually Observed Unless Noted By *

Label Definition

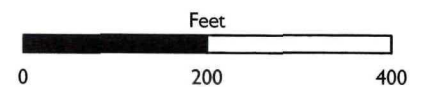
Sample Identifier

Libby / Other / Chrysotile

Amphibole Amphibole

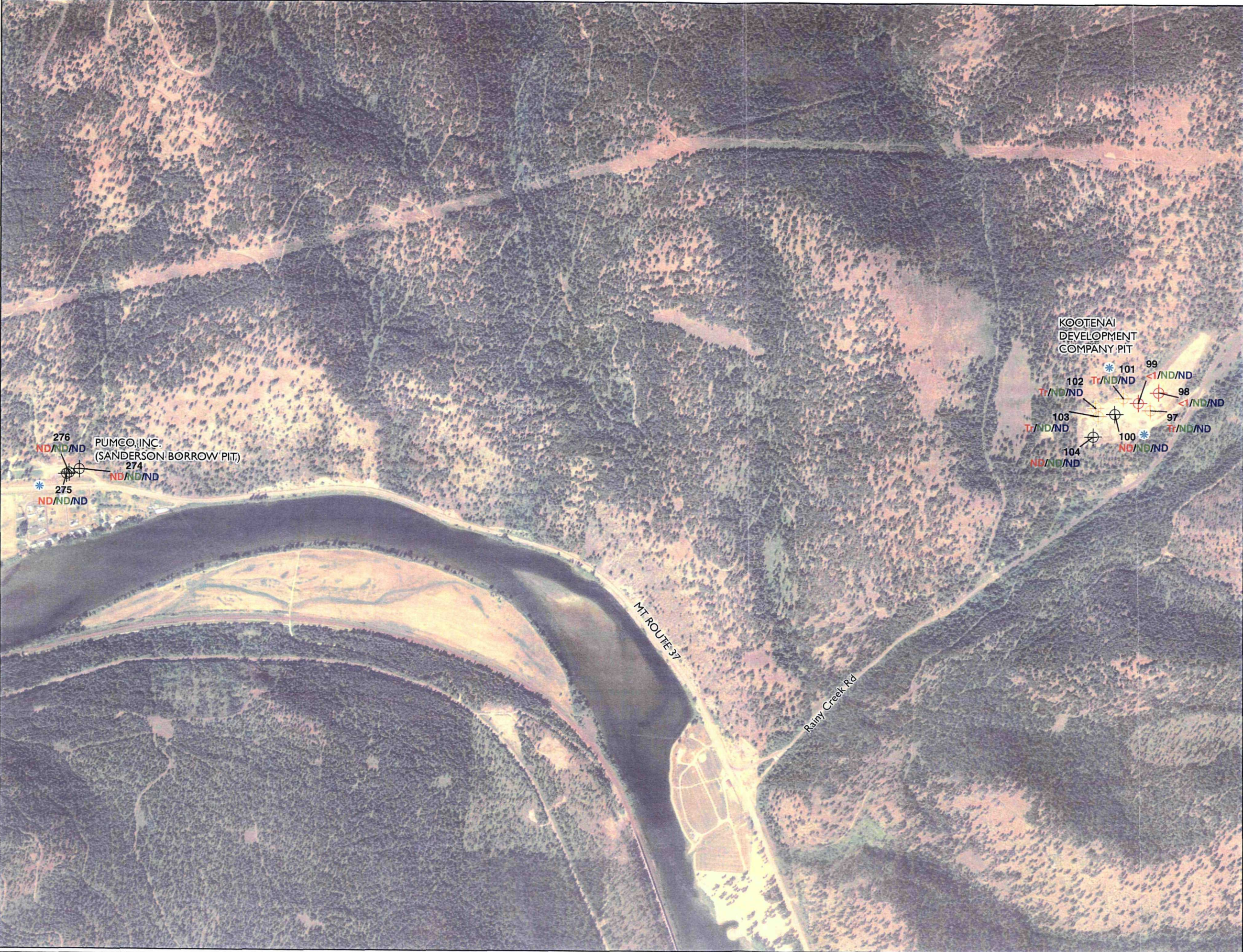


Area of Interest



Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

Figure 10
Traction Sand and Road
Aggregate Pits/Stockpiles
Soil Sample Locations and Results
Libby, Montana



Legend

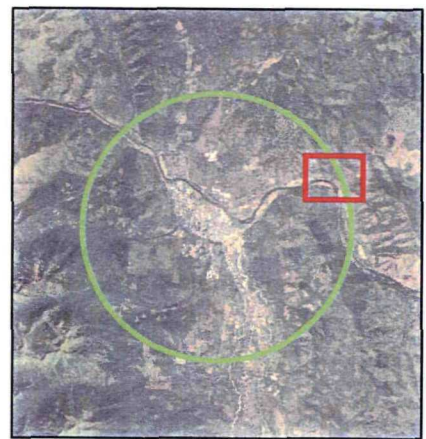
- ⊕ Sample Locations
ND (Not Detected)
- ⊕ Sample Locations
Trace $\geq 0\% < 0.2\%$
- ⊕ Sample Locations $\geq 0.2\% < 1\%$
- Milepost (MP)
- No Vermiculite Visually
Observed Unless Noted By *

Label Definition

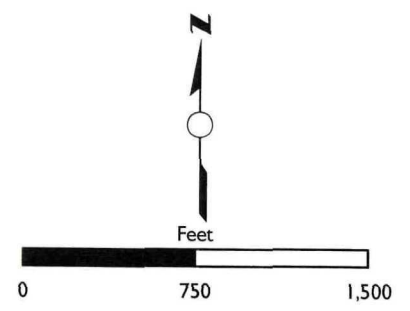
Sample Identifier

Libby / Other / Chrysotile

Amphibole Amphibole



Area of Interest



Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

Figure 11
Traction Sand and Road Aggregate
Pits/Stockpiles
Soil Sample Locations and Results
Libby, Montana



Legend

- Sample Locations ND (Not Detected)
- Sample Locations Trace $\geq 0\% < 0.2\%$
- Sample Locations $\geq 0.2\% < 1\%$
- Milepost (MP)
- No Vermiculite Visually Observed Unless Noted By *

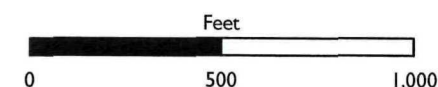
Label Definition

Sample Identifier

Libby / Other / Chrysotile
Amphibole Amphibole

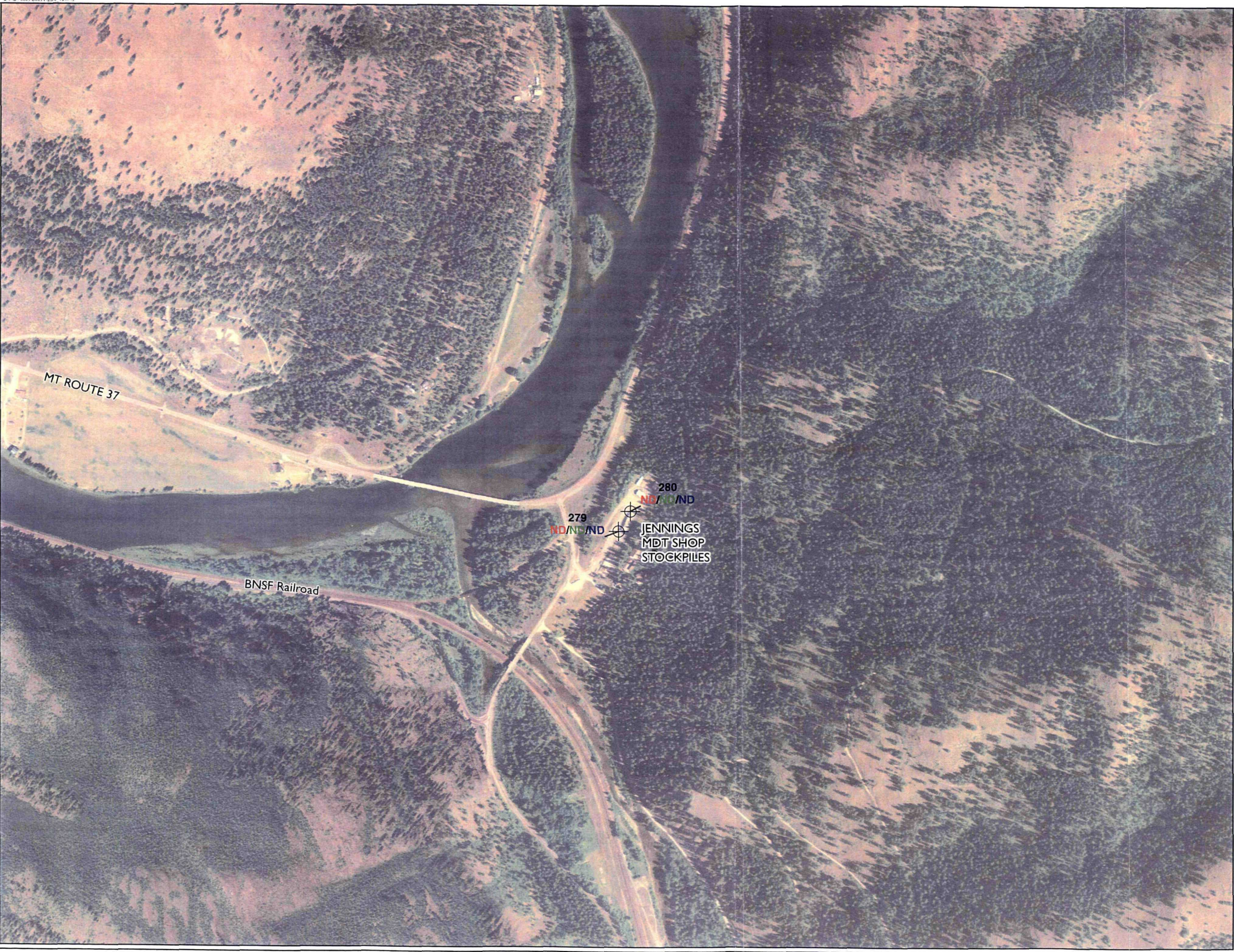


Area of Interest



Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

Figure 12
Traction Sand and Road
Aggregate Pits/Stockpiles
Soil Sample Locations and Results
Libby, Montana



Legend

- ⊕ Sample Locations
ND (Not Detected)
- ⊕ Sample Locations
Trace $\geq 0\% < 0.2\%$
- ⊕ Sample Locations $\geq 0.2\% < 1$
- Milepost (MP)
- No Vermiculite Visually
Observed Unless Noted By *

Label Definition

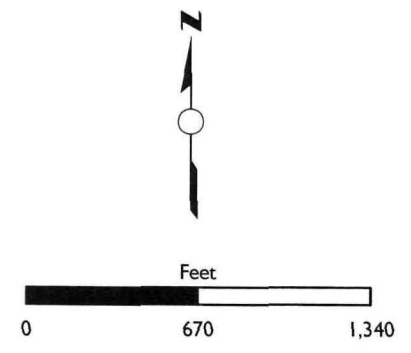
Sample Identifier

Libby / Other / Chrysotile

Amphibole Amphibole

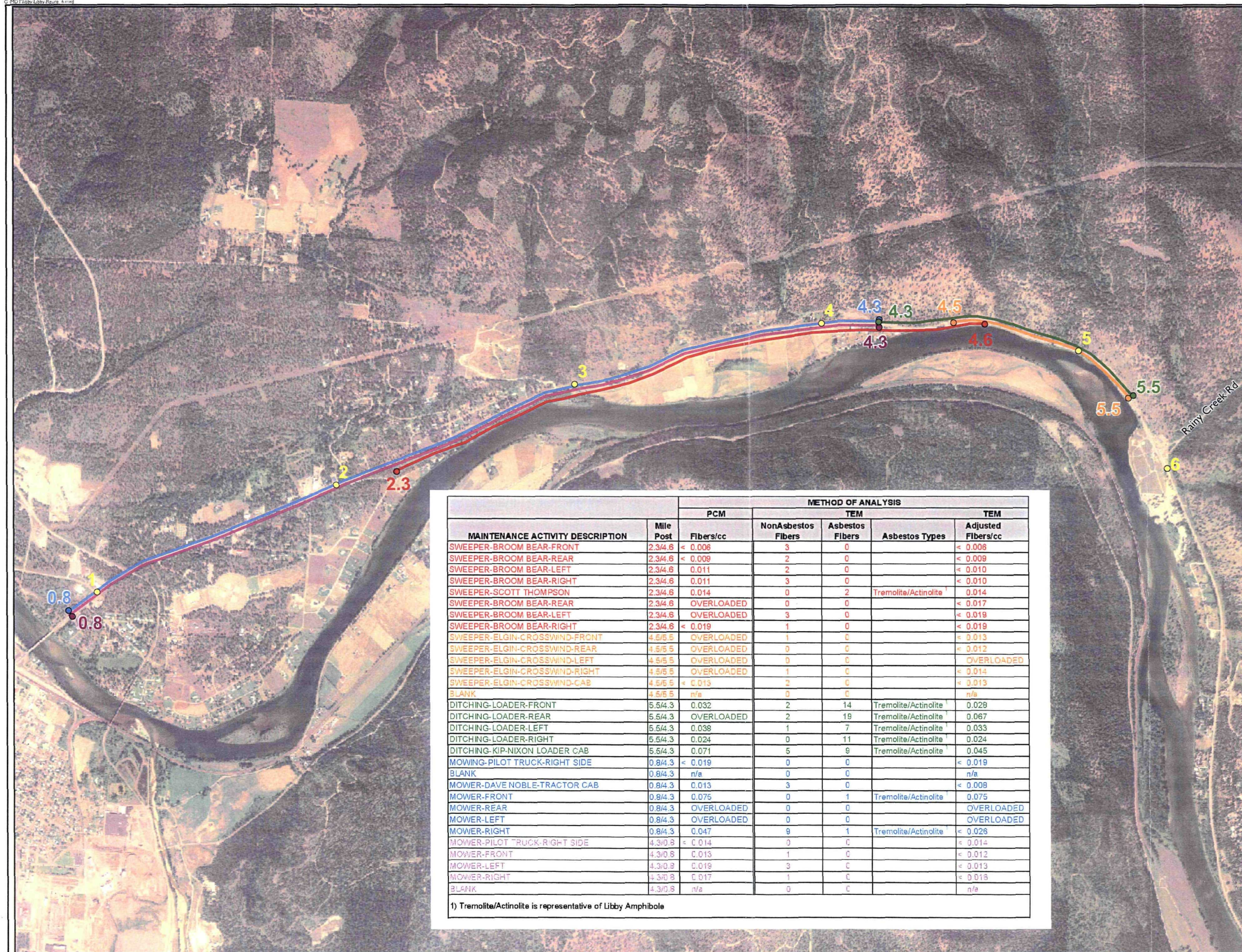


Area of Interest



Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

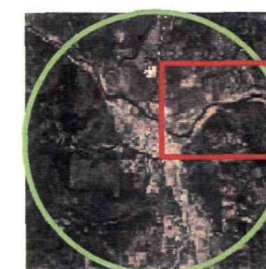
Figure 13
Traction Sand and Road Aggregate
Pits/Stockpiles
Soil Sample Locations and Results
Libby, Montana



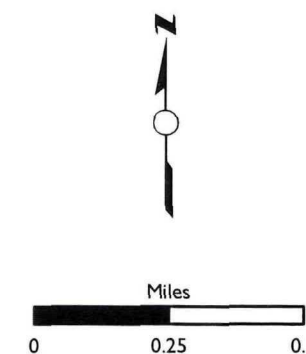
Legend

Milepost Locations

- 0.8-4.3 4.3-0.8
 2.3-4.6 4.5-5.5
 4.3-5.5
 Milepost (MP)



Area of Interest



Sources: Milepost data from Montana Department of Transportation, Route data from Montana NRIS

Figure 14
 MT Route 37
 NEA Air Sample Locations
 and Results
 Libby, Montana

APPENDIX B
TABLES

TABLE 1
BULK SOIL SAMPLE RESULTS SUMMARY
MDT RIGHTS-OF-WAY, TRACTION SAND AND ROAD AGGREGATE SOURCES, LIBBY MAINTENANCE SECTION, AND
ROAD SWEEPINGS
LIBBY, MONTANA

Sample ID	Sample Date	Sample Appearance	Libby Amphibole	Chrysotile	Other Amphibole
071106-KC-LMF-E-1		N/A (2)	N/A (2)	N/A (2)	N/A (2)
071106-KC-LMF-E-2		N/A (2)	N/A (2)	N/A (2)	N/A (2)
071106-KC-LMF-E-3	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-E-3	7/28/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-E-4	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-5	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-6	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-7	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-8	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-9	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-10	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-11	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-12	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-13	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-13d	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-14	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-15	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-LMF-W-16	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-482-W-75-17	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-482-E-75-18	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-482-W-5-19	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-482-W-5-19	7/28/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-482-E-5-20	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-482-E-5-21	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-RB-482-W-25-22	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-482-E-25-23	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-KC-482-W-1.0-24	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071106-RB-482-E-1.0-25	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-RB-482-W-1.25-26	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-E-1.25-27	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-W-1.5-28	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-E-1.5-29	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-W-1.75-30	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-E-1.75-31	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-W-2.0-32	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-E-2.0-33	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-W-2.25-34	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-E-2.25-35	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-E-2.25-35	7/28/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-W-2.5-36	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-E-2.5-37	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-482-E-2.5-38	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-N-0.25-39	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND

Notes: (1) Cellulose present in sample
(2) Coarse fraction only, not analyzed

TABLE 1
BULK SOIL SAMPLE RESULTS SUMMARY
MDT RIGHTS-OF-WAY, TRACTION SAND AND ROAD AGGREGATE SOURCES, LIBBY MAINTENANCE SECTION, AND
ROAD SWEEPINGS
LIBBY, MONTANA

Sample ID	Sample Date	Sample Appearance	Libby Amphibole	Chrysotile	Other Amphibole
071206-KC-260-S-0.25-40	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-N-0.5-41	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-S-0.5-42	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-N-0.75-43	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-S-0.75-44	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-N-1.0-45	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-N-1.0-45	7/28/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-S-1.0-46	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-S-1.0-46	7/28/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-N-1.25-47	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-S-1.25-48	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-N-1.5-49	7/27/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-S-1.5-50	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-N-1.75-51	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-S-1.75-52	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-N-2.0-53	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071206-KC-260-S-2.0-54	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-E-2.25-55	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-W-2.25-56	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-E-2.5-57	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-W-2.5-58	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-E-2.75-59	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-E-2.75-59	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-W-2.75-60	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-W-2.75-61	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-N-3.0-62	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-S-3.0-63	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-N-3.25-64	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-S-3.25-65	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-N-3.5-66	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-S-3.5-67	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-N-3.75-68	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-S-3.75-69	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-S-3.75-69	8/4/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-N-4.0-70	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-N-4.0-70	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-S-4.0-71	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-260-S-4.0-71	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-E-0.25-72	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-E-0.25-72	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-W-0.25-73	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-W-0.25-73	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-E-0.5-74	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND

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Sample ID	Sample Date	Sample Appearance	Libby Amphibole	Chrysotile	Other Amphibole
071306-567-KC-E-0.5-74	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-W-0.5-75	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-W-0.5-75	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-E-0.75-76	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-E-0.75-76	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-W-0.75-77	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-W-0.75-77	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-E-1.0-78	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-E-1.0-78	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-1.0-79	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-1.0-79	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-1.0-79	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-567-KC-1.0-79	8/3/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-W-1.0-80	8/5/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-E-1.25-81	8/5/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-W-1.25-82	8/5/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-E-1.5-83	8/5/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-W-1.5-84	8/5/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-E-1.75-85	8/5/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-W-1.75-86	8/5/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-E-2.0-87	8/5/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-W-2.0-88	8/5/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-E-2.25-89	8/5/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-E-2.25-89	8/5/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-W-2.25-90	8/4/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-E-2.5-91	8/4/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-W-2.5-92	8/4/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-E-2.75-93	8/4/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-E-2.75-93	8/4/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-W-2.75-94	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-E-3.0-95	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071306-KC-567-W-3.0-96	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071406-KC-PIT5-E-Wall-97	8/10/2006	Brown, Non-Fibrous, Homogeneous	Tr	ND	ND
071406-KC-PIT5-E-Wall-98	8/10/2006	Brown, Non-Fibrous, Homogeneous	<1	ND	ND
071406-KC-PIT5-Floor-99	8/10/2006	Brown, Non-Fibrous, Homogeneous	<1	ND	ND
071406-KC-PIT5-Floor-100	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071406-KC-PIT5-N-Wall-101	8/10/2006	Brown, Non-Fibrous, Homogeneous	Tr	ND	ND
071406-KC-PIT5-N-Wall-102	8/10/2006	Brown, Non-Fibrous, Homogeneous	Tr	ND	ND
071406-KC-PIT5-SPNW-103	8/10/2006	Brown, Non-Fibrous, Homogeneous	Tr	ND	ND
071406-KC-PIT5-SPNW-103	8/10/2006	Brown, Non-Fibrous, Homogeneous	Tr	ND	ND
071406-KC-PIT5-SPSW-104	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-E-3.25-105	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-W-3.25-106	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND

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Sample ID	Sample Date	Sample Appearance	Libby Amphibole	Chrysotile	Other Amphibole
071706-KC-567-E-3.5-107	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-W-3.5-108	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-E-3.75-109	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-W-3.75-110	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-E-4.0-111	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-W-4.0-112	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-E-4.25-113	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-E-4.25-113	8/10/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-W-4.25-114	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-W-4.25-114	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-E-4.5-115	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-567-W-4.5-116	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-E-38.0-117	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-W-38.0-118	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-E-37.75-119	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-W-37.75-120	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-W-37.75-121	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-E-37.5-122	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-E-37.5-123	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-E-37.25-124	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-W-37.25-125	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-E-37.0-126	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-W-37.0-127	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-W-37.0-127	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-E-36.75-128	8/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-W-36.75-129	10/25/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-W-36.75-129	10/25/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071706-KC-2-E-36.5-130	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-W-36.5-131	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-E-36.25-132	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-W-36.25-133	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-E-36.0-134	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-W-36.0-135	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-E-35.75-136	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-W-35.75-137	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-E-35.5-138	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-E-35.5-138	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-W-35.5-139	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-W-35.5-140	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-E-35.25-141	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-W-35.25-142	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-E-35.0-143	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071706-KC-2-W-35.0-144	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)

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MDT RIGHTS-OF-WAY, TRACTION SAND AND ROAD AGGREGATE SOURCES, LIBBY MAINTENANCE SECTION, AND
ROAD SWEEPINGS
LIBBY, MONTANA

Sample ID	Sample Date	Sample Appearance	Libby Amphibole	Chrysotile	Other Amphibole
071806-CV-2-E-34.75-145	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-34.75-146	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-34.5-147	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-34.5-147	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-34.5-148	10/25/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-34.25-149	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-34.25-150	10/25/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-34.0-151	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-34.0-152	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-33.75-153	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-33.75-154	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-33.5-155	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-33.25-156	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-33.25-156	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-33.25-157	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-33.0-158	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-32.75-159	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-32.75-160	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-32.75-161	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-32.5-162	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-32.5-163	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-32.25-164	10/25/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-32.25-165	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-32.25-165	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-32.0-166	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-32.0-167	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-E-31.75-168	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-31.75-169	10/25/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-31.5-170	10/25/2006	Brown, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
071806-CV-2-W-31.5-171	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-31.25-172	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-31.25-173	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-31.0-174	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-31.0-175	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-30.75-176	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-30.75-177	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-30.5-178	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-30.5-179	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-30.5-180	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-30.5-180	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-30.25-181	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-30.25-182	11/16/2006	Brown, Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-30.0-183	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND

Notes: (1) Cellulose present in sample
(2) Coarse fraction only, not analyzed

TABLE 1
BULK SOIL SAMPLE RESULTS SUMMARY
MDT RIGHTS-OF-WAY, TRACTION SAND AND ROAD AGGREGATE SOURCES, LIBBY MAINTENANCE SECTION, AND
ROAD SWEEPINGS
LIBBY, MONTANA

Sample ID	Sample Date	Sample Appearance	Libby Amphibole	Chrysotile	Other Amphibole
071806-CV-2-W-30.0-184	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-29.75-185	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-29.75-186	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-29.75-187	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-29.5-188	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-29.25-189	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-29.25-190	11/16/2006	Brown, Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-29.25-190	11/16/2006	Brown, Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-29.0-191	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-29.0-192	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-28.75-193	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-28.75-194	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-E-28.5-195	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-W-28.5-196	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-28.25-197	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071806-CV-2-28.25-197	11/16/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-2-W-28.25-198	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-2-E-28.0-199	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-2-W-28.0-200	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-5.5-201	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-5.5-202	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-5.5-203	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-5.75-204	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-5.75-205	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-6.0-206	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-6.0-207	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-6.0-207	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-6.25-208	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-6.25-209	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-6.5-210	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-6.5-211	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-6.75-212	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-6.75-213	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-7.0-214	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-7.0-215	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-7.25-216	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-7.25-217	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-7.25-217	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-7.5-218	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-7.6-219	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-7.5-220	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-7.5-220	11/27/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-7.75-221	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND

Notes: (1) Cellulose present in sample
(2) Coarse fraction only, not analyzed

TABLE 1
BULK SOIL SAMPLE RESULTS SUMMARY
MDT RIGHTS-OF-WAY, TRACTION SAND AND ROAD AGGREGATE SOURCES, LIBBY MAINTENANCE SECTION, AND
ROAD SWEEPINGS
LIBBY, MONTANA

Sample ID	Sample Date	Sample Appearance	Libby Amphibole	Chrysotile	Other Amphibole
071906-CV-37-W-7.75-222	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-8.0-223	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-8.0-224	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-8.25-225	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-8.25-226	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-8.5-227	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-8.5-228	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-8.75-229	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-8.75-230	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-8.75-230	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-9.0-231	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-9.0-232	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-9.25-233	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-9.25-234	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-E-9.5-235	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
071906-CV-37-W-9.5-236	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-S-1.0-237	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-N-1.0-238	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-S-2.0-239	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-N-2.0-240	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-N-2.0-240	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-N-2.0-241	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-N-3.0-242	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-S-3.0-243	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-N-4.0-244	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-S-4.0-245	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-N-5.0-246	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-S-5.0-247	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-37-S-5.0-247	12/6/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit2-EWALL-248	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit2-NWALL-249	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit2-ESP-250	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit2-WSP-251	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit1-EWALL-252	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit1-NWALL-253	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit1-WSP-254	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit1-SSP-255	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit10-NWALL-256	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit10-EWALL-257	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit10-EWALL-257	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit10-WWALL-258	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit4-NWALL-259	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit4-WSP-260	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND

Notes: (1) Cellulose present in sample
(2) Coarse fraction only, not analyzed

TABLE 1
BULK SOIL SAMPLE RESULTS SUMMARY
MDT RIGHTS-OF-WAY, TRACTION SAND AND ROAD AGGREGATE SOURCES, LIBBY MAINTENANCE SECTION, AND
ROAD SWEEPINGS
LIBBY, MONTANA

Sample ID	Sample Date	Sample Appearance	Libby Amphibole	Chrysotile	Other Amphibole
072006-CV-Pit4-WSP-261	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit4-NSP-262	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit3-NWALL-263	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit3-SSP-264	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit6-NSP-265	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit6-NWALL-266	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit15-NSP-267	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit15-NSP-267	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit15-SWALL-268	12/12/2006	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit15-ESP-269	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072006-CV-Pit15-ESP-269	12/12/2006	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-MDTSWP-NW-27	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-MDTSWP-NW-27	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-PIT14-SWALL-27	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-PIT14-WWALL-27	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-PIT11-NWALL-27	1/16/2007	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-PIT11-MSP-275	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-PIT11-NSP-276	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-37-N-5.7-277	1/16/2007	Brown, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-37-N-5.75-278	1/16/2007	Gray, Fibrous, Homogeneous (1)	ND (1)	ND (1)	ND (1)
072106-CV-PIT17-SSP-279	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-PIT17-NSP-280	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-PIT17-NSP-281	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072706-MU-37-2.7/4.6-282	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072706-MU-37-4.6/5.5-283	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072706-MU-37-4.3/5.5-284	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072706-MU-37-4.3/5.5-284	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND
072106-CV-PIT17-SSP-279	1/16/2007	Gray, Non-Fibrous, Homogeneous	ND	ND	ND

Notes: (1) Cellulose present in sample
(2) Coarse fraction only, not analyzed

TABLE 2
NEGATIVE EXPOSURE ASSESSMENT AIR SAMPLE RESULTS SUMMARY
SELECT MDT MAINTENANCE ACTIVITIES ALONG MT 37 RIGHT-OF-WAY
LIBBY, MONTANA

Maintenance Activity Description	Sample	Milepost	Sample Date	Volume Liters	METHOD OF ANALYSIS					
					PCM		TEM			
					Limit of Detection	Fibers/cc	NonAsbestos Fibers	Asbestos Fibers	Asbestos Types	Adjusted Fibers/CC
GUARDRAIL-REPLACEMENT-BACKHOE-FRONT	072606-37-6.4/8.5-1	6.4/8.5	7/26/2006	357	0.008	< 0.008	0			< 0.008
GUARDRAIL-REPLACEMENT-BACKHOE-REAR	072606-37-6.4/8.5-2	6.4/8.5	7/26/2006	345	0.008	0.009	0			< 0.008
GUARDRAIL-REPLACEMENT-BACKHOE-LEFT	072606-37-6.4/8.5-3	6.4/8.5	7/26/2006	300	0.009	0.013	0			< 0.009
GUARDRAIL-REPLACEMENT-BACKHOE-RIGHT	072606-37-6.4/8.5-4	6.4/8.5	7/26/2006	354	0.008	0.028	0			< 0.008
GUARDRAIL-REPLACEMENT-DAVE NOBLE	072606-37-6.4/8.5-5	6.4/8.5	7/26/2006	602	0.004	0.024	2			< 0.004
GUARDRAIL-REPLACEMENT-SCOTT THOMPSON	072606-37-6.4/8.5-6	6.4/8.5	7/26/2006	521	0.005	0.024	3	1	Tremolite/Actinolite (1)	0.006
GUARDRAIL-REPLACEMENT-KIP NIXON	072606-37-6.4/8.5-7	6.4/8.5	7/26/2006	577	0.005	0.014	15			< 0.005
GUARDRAIL-REPLACEMENT-VAN SWEARINGER	072606-37-6.4/8.5-8	6.4/8.5	7/26/2006	576	0.005	0.008	7			< 0.005
BLANK	072606-37-6.4/8.5-9	6.4/8.5	7/26/2006	0		n/a	0			n/a (3)
SWEEPER-BROOM BEAR-FRONT	072706-37-2.3/4.6-10	2.3/4.6	7/27/2006	425	0.006	< 0.006	3			< 0.006

- 1) Tremolite/Actinolite is representative of Libby Amphibole
- 2) Reported using only TEM because PCM was overloaded
- 3) Field Blank
- 4) PCM and TEM Overloaded so not analyzed

TABLE 2
NEGATIVE EXPOSURE ASSESSMENT AIR SAMPLE RESULTS SUMMARY
SELECT MDT MAINTENANCE ACTIVITIES ALONG MT 37 RIGHT-OF-WAY
LIBBY, MONTANA

Maintenance Activity Description	Sample	Milepost	Sample Date	Volume Liters	METHOD OF ANALYSIS					
					PCM		TEM			
					Limit of Detection	Fibers/cc	NonAsbestos Fibers	Asbestos Fibers	Asbestos Types	Adjusted Fibers/CC
SWEEPER-BROOM BEAR-REAR	072706-37-2.3/4.6-11	2.3/4.6	7/27/2006	285	0.009	< 0.009	2			< 0.009
SWEEPER-BROOM BEAR-LEFT	072706-37-2.3/4.6-12	2.3/4.6	7/27/2006	274	0.010	0.011	2			< 0.010
SWEEPER-BROOM BEAR-RIGHT	072706-37-2.3/4.6-13	2.3/4.6	7/27/2006	273	0.010	0.011	3			< 0.010
SWEEPER-SCOTT THOMPSON	072706-37-2.3/4.6-14	2.3/4.6	7/27/2006	281	0.010	0.014	0	2	Tremolite/Actinolite (1)	0.014
SWEEPER-BROOM BEAR-REAR	072706-37-2.3/4.6-15	2.3/4.6	7/27/2006	161		n/a	0			< 0.017 (2)
SWEEPER-BROOM BEAR-LEFT	072706-37-2.3/4.6-16	2.3/4.6	7/27/2006	139		n/a	3			< 0.019 (2)
SWEEPER-BROOM BEAR-RIGHT	072706-37-2.3/4.6-17	2.3/4.6	7/27/2006	139	0.019	< 0.019	1			< 0.019
SWEEPER-ELGIN-CROSSWIND-FRONT	072706-37-4.5/5.5-18	4.5/5.5	7/27/2006	200		n/a	1			< 0.013 (2)
SWEEPER-ELGIN-CROSSWIND-REAR	072706-37-4.5/5.5-19	4.5/5.5	7/27/2006	219		n/a	0			< 0.012 (2)
SWEEPER-ELGIN-CROSSWIND-LEFT (4)	072706-37-4.5/5.5-20	4.5/5.5	7/27/2006	207		n/a				

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2) Reported using only TEM because PCM was overloaded
3) Field Blank
4) PCM and TEM Overloaded so not analyzed

TABLE 2
NEGATIVE EXPOSURE ASSESSMENT AIR SAMPLE RESULTS SUMMARY
SELECT MDT MAINTENANCE ACTIVITIES ALONG MT 37 RIGHT-OF-WAY
LIBBY, MONTANA

Maintenance Activity Description	Sample	Milepost	Sample Date	Volume Liters	METHOD OF ANALYSIS					
					PCM		TEM			
					Limit of Detection	Fibers/cc	NonAsbestos Fibers	Asbestos Fibers	Asbestos Types	Adjusted Fibers/CC
SWEeper-ELGIN-CROSSWIND-RIGHT	072706-37-4.5/5.5-21	4.5/5.5	7/27/2006	189		n/a	1			< 0.014 (2)
SWEeper-ELGIN-CROSSWIND-CAB	072706-37-4.5/5.5-22	4.5/5.5	7/27/2006	202	0.013	< <0.013	2			< 0.013
BLANK	072706-37-4.5/5.5-23	4.5/5.5	7/27/2006	0		n/a				n/a
DITCHING-LOADER-FRONT	072806-37-5.5/4.3-24	5.5/4.3	7/28/2006	399	0.007	0.032	2	14	Tremolite/Actinolite (1)	0.028
DITCHING-LOADER-REAR	072806-37-5.5/4.3-25	5.5/4.3	7/28/2006	432		n/a	2	19	Tremolite/Actinolite (2)	0.067
DITCHING-LOADER-LEFT	072806-37-5.5/4.3-26	5.5/4.3	7/28/2006	437	0.006	0.038	1	7	Tremolite/Actinolite (1)	0.033
DITCHING-LOADER-RIGHT	072806-37-5.5/4.3-27	5.5/4.3	7/28/2006	464	0.006	0.024	0	11	Tremolite/Actinolite (1)	0.024
DITCHING-KIP-NIXON LOADER CAB	072806-37-5.5/4.3-28	5.5/4.3	7/28/2006	430	0.006	0.071	5	9	Tremolite/Actinolite (1)	0.045
MOWING-PILOT TRUCK-RIGHT SIDE	072806-37-0.8/4.3-29	0.8/4.3	7/28/2006	140	0.019	< 0.019	0			< 0.019
BLANK	072806-37-0.8/4.3-30	0.8/4.3	7/28/2006	0		n/a				n/a (3)

- 1) Tremolite/Actinolite is representative of Libby Amphibole
- 2) Reported using only TEM because PCM was overloaded
- 3) Field Blank
- 4) PCM and TEM Overloaded so not analyzed

TABLE 2
NEGATIVE EXPOSURE ASSESSMENT AIR SAMPLE RESULTS SUMMARY
SELECT MDT MAINTENANCE ACTIVITIES ALONG MT 37 RIGHT-OF-WAY
LIBBY, MONTANA

Maintenance Activity Description	Sample	Milepost	Sample Date	Volume Liters	METHOD OF ANALYSIS					
					PCM		TEM			
					Limit of Detection	Fibers/cc	NonAsbestos Fibers	Asbestos Fibers	Asbestos Types	Adjusted Fibers/CC
MOWER-DAVE NOBLE-TRACTOR CAB	072806-37-0.8/4.3-31	0.8/4.3	7/28/2006	341	0.008	0.013	3			< 0.008
MOWER-FRONT	072806-37-0.8/4.3-32	0.8/4.3	7/28/2006	131	0.021	0.075	0	1	Tremolite/Actinolite (1)	0.075
MOWER-REAR (4)	072806-37-0.8/4.3-33	0.8/4.3	7/28/2006	122		n/a				
MOWER-LEFT (4)	072806-37-0.8/4.3-34	0.8/4.3	7/28/2006	127		n/a				
MOWER-RIGHT	072806-37-0.8/4.3-35	0.8/4.3	7/28/2006	104	0.026	0.047	9	1	Tremolite/Actinolite (1)	< 0.026
MOWER-PILOT TRUCK-RIGHT SIDE	072806-37-4.3/0.8-36	4.3/0.8	7/28/2006	197	0.014	< 0.014	0			< 0.014
MOWER-FRONT	072806-37-4.3/0.8-37	4.3/0.8	7/28/2006	218	0.012	0.013	1			< 0.012
MOWER-LEFT	072806-37-4.3/0.8-38	4.3/0.8	7/28/2006	212	0.013	0.019	3			< 0.013
MOWER-RIGHT	072806-37-4.3/0.8-39	4.3/0.8	7/28/2006	173	0.016	0.017	1			< 0.016
BLANK	072806-37-4.3/0.8-40	4.3/0.8	7/28/2006	0		n/a	0			n/a (3)

- 1) Tremolite/Actinolite is representative of Libby Amphibole
- 2) Reported using only TEM because PCM was overloaded
- 3) Field Blank
- 4) PCM and TEM Overloaded so not analyzed

APPENDIX C
SAMPLING AND ANALYSIS PLAN

303 Irene Street
Helena, MT 59601
Tel 406.443.5210
Fax 406.449.3729

June 30, 2006

Mr. Stan Sternberg
Montana Department of Transportation
Environmental Services Bureau
2701 Prospect Avenue
P.O. Box 201001
Helena, Montana 59620-1001

**RE: Sampling and Analysis Plan for Potentially Asbestos-Containing Soil in MDT Rights of Way, Traction Sand and Road Aggregate Sources, Collected Road Sweepings, and Sweeper Emissions
Libby, Montana
Task Order No. 605**

Dear Mr. Sternberg:

The Montana Department of Transportation (MDT) requested this work in their letter to Mr. Aaron Shewman dated April 8, 2006 (MDT, 2006a). In response, Maxim prepared a work plan dated May 22, 2006 (Maxim, 2006), which was approved by the MDT in their letter to Mr. Aaron Shewman dated May 26, 2006 (MDT, 2006b). In accordance with the work plan, Maxim developed this sampling and analysis plan (SAP) that outlines the methods for determining sample locations and procedures for sampling potentially asbestos-containing soil in the Libby area as well as aerosol dust emissions resulting from road sweeping operations. Figures referenced in this SAP are contained in Attachment A, soil and air sampling field forms are contained in Attachment B, applicable Libby Area standard operating procedures are contained in Attachment C, and references are listed in Attachment D.

The first step in the SAP involves preparing a site-specific health and safety plan (HASP) for Maxim personnel conducting the sampling. The HASP will be prepared in accordance with Occupational Safety and Health Administration (OSHA) requirements. As part of these requirements, all personnel on-site during the sampling of potentially asbestos-containing soil must have, at a minimum, 24 hours of OSHA Hazardous Waste Operation and Emergency Response (HAZWOPER) training. All Maxim personnel on-site conducting the sampling will also have asbestos inspector training and be accredited by the State of Montana Department of Environmental Quality (MDEQ) Asbestos Control Program. Maxim will ensure that HAZWOPER training and asbestos inspector requirements, including respirator fit-testing and medical surveillance, have adequately been met for all on-site Maxim personnel. Included in the HASP will be provisions for personal protective equipment (PPE), traffic control, and other non-asbestos hazards that may be encountered during the course of the project.

Soil Sampling Locations

Soil samples will be collected from MDT Rights of Way (ROWs), selected and accessible sources (pits/stockpiles) for traction sand and road aggregate, surface soil at the MDT Libby Maintenance Section Facility, and road sweepings piles from two road sweepers.

For soil sample locations along MDT ROWs, Maxim field personnel will adhere to the following procedure:

1. Soil samples will be collected within 10-feet of the highway or pavement boundary at approximately 0.25 mile intervals along both sides of selected ROWs within an approximate 5-mile radius of the Town of Libby. The following MDT ROWs will be sampled (Figure 1):
 - US 2 (N-1), milepost (MP) 28.0 through 38.0
 - S-567, MP 0.0 through 4.5
 - S-482, MP 0.0 through 2.5
 - S-260, MP 0.0 through 4.0
 - MT 37 (P-33), MP 0.0 through 5.5 (one-mile intervals instead of 0.25 mile intervals at duplicate locations as those identified in CDM, 2006)
 - MT 37 (P-33), MP 5.5 through 9.5 (0.25 mile intervals)
2. For soil sample locations at each of the 17 traction sand and road aggregate source pits/stockpiles selected by MDT (Figure 2), Maxim field personnel will adhere to the following procedure:
 - A minimum of two soil samples from random locations will be collected from each of the pit/stockpile locations
3. Ten soil samples will be collected from the MDT Libby Maintenance Section facility. The ten sample locations will be selected in an approximate grid fashion on 50 foot centers to best represent the entire facility (Figure 3). Each sample location will be marked in the field on the facility map, the location of existing site features will be confirmed, and if features are missing, they will be located relative to either of the two existing site buildings using a measuring wheel
4. Two soil samples from random locations will be collected from up to four of the sweepings piles deposited by two Libby facility sweepers operating in the following two areas:
 - US 2 and MT 37 within the Town of Libby limits
 - MT 37 from the Kootenai River Bridge to the Rainy Creek Road turnoff

The correct sweeping pile locations will be identified by local MDT maintenance personnel.

Soil Sampling Procedure

Soil samples will be collected from MDT ROWs, selected and accessible traction sand and road aggregate source pits/stockpiles, from the MDT Libby Maintenance Section Facility, and road sweepings from two road sweepers. All sample analysis will be conducted in accordance with the procedures outlined in SOP SRC-LIBBY-03 (Revision 1).

For the collection of soil samples, Maxim field personnel will adhere to the following procedure:

1. Perform all sampling activities during daylight hours
2. Determine sample location as described above
3. Identify all hazards associated with the sample location and implement appropriate safety and required traffic controls
4. Don appropriate PPE including a half-face negative pressure respirator equipped with P100 filters, nitrile sampling gloves, and a fluorescent green road-hazard vest equipped with reflective striping
5. Collect soil samples:
 - ROWs: Collect and composite three sub-samples at each sample location. Collect sub samples from the zero (0) to six (6) inch depth: one at the sample location and one from locations 100 feet in opposite directions from the original sub sample location. Mix the three sub samples together in a stainless steel bowl and composite them into one sample. Install a labeled, 12-inch wooden stake at the sample location
 - Sand and aggregate source pits/stockpiles: Collect grab samples at each of the two random sample locations. Collect samples from the zero (0) to six (6) inch depth. Install a labeled, 12-inch wooden stake at each sample location
 - MDT Libby Maintenance Section Facility: Collect grab samples at each of the 10 locations described above. Collect samples from the zero (0) to six (6) inch depth. Install a labeled, 12-inch wooden stake at each sample location
 - Road sand sweepings: Collect grab samples at each of the two random sample locations selected for each sweepings pile. Collect samples from the zero (0) to six (6) inch depth. Install a labeled, 12-inch wooden stake at each sample location
6. Mark the approximate location of each sample on an orthophoto-based field map showing the project area on one-inch equal to one-mile scale
7. Document the location of each sample with a digital photograph and a resource-grade global positioning system (GPS) and record the photo number(s) and GPS point on the field form
8. Record on the field sampling form the presence of any visible vermiculite in the sample/sampling area

9. Document the sample number on the field form, chain-of-custody, and 12-inch wooden stake

- Soil sample numbering will use the following format:

DATE-SAMPLER'S INITIALS-HIGHWAY(US 2, MT 37, S 567, S 482, or S 260)-
SIDE(North, South, East, or West)-MILEPOST(to the nearest tenth)-SEQUENTIAL
SAMPLE NUMBER

As an example, for a sample collected on July 14, 2006, by Ryan C. Behrends from along US Highway 2 on the east side of the highway at milepost 28.5, the sample number would be:

071406-RCB-US2-E-28.5-1

The sequential number will increase with each sample collected.

10. Collect duplicate samples at a rate of 5% (1 duplicate for every 20 samples)

11. Place each sample in a labeled, sealed plastic bag, then into a suitable container for transport to the laboratory. Ensure the transport container, such as a cooler, will protect the samples from damage and allow easy handling.

12. Following chain of custody protocol, submit the samples for Polarized Light Microscopy (PLM) analysis for Libby Amphibole (LA) Asbestos in accordance with SOP SRC-LIBBY-03 (Revision 1), the method for analysis of asbestos fibers in soil by PLM.

13. Retain a copy of the chain-of-custody for the project file.

Air Sampling Locations

Air samples will be collected from the exterior of two MDT road sweepers, one vacuum style and one broom style, during the execution of normal tasks in two areas:

- US 2 and MT 37 within the Town of Libby limits
- MT 37 from the Kootenai River Bridge to the Rainy Creek Road turnoff

Four air sampling pumps and cassettes will be placed on each sweeper to sample the fugitive dust emitted during sweeping operations. One air sampling pump will be placed on each side, including left (driver), right (passenger), front, and back of each sweeper. Air sampling will be conducted on each sweeper for two days. Sampling cassettes will be replaced at approximately four hour intervals during each daily maintenance work shift to prevent overloading of the internal filter. These air samples will determine the presence and concentration of asbestos fibers in dust emissions.

Air Sampling Procedure

Air samples will be collected from MDT sweepers during normal work activities and tasks. For the collection of air samples, Maxim personnel will adhere to the following procedure:

1. Determine the sweeper type (vacuum or broom) and sample location on the sweeper
2. Record the sampling route (US 2 or MT 37 within the Town of Libby limits, or MT 37 from the Kootenai River Bridge to the Rainy Creek Road turnoff), sweeper type, location of the pump on the sweeper, and sample pump number on the air sample collection form
3. Calibrate the sampling pump to approximately 3.0 liters per minute. Record the initial calibration readings on the air sample collection form
4. Label the sample cassette with a unique sample number

- Air sample numbering will use the following format:

DATE-SAMPLER'S INITIALS-SWEEPER TYPE-LOCATION ON SWEEPER-ROUTE-
SEQUENTIAL SAMPLE NUMBER

As an example, for an air sample that was collected on June 14, 2006, by Ryan C. Behrends from the right side of the broom sweeper as it traveled along US 2 within the Town of Libby limits, the sample number would be:

061406-RCB-BROOM-RIGHT-US2LIBBY-1

The sequential number will increase with each sample collected.

5. Place the sample cassette in the sampling train. Record the sample start time on the air sample collection form. Note that times should be recorded in 24-hour format
6. Document the sample number on the field form and chain-of-custody
7. Following the conclusion of the 4-hour air sampling shift, remove the sampling cassette from the sampling train and immediately cap the cassette
8. Document the sample stop time on the air sample collection form
9. Perform post-sampling pump calibration and document the post-sampling calibration readings on the air sample collection form
10. Place the samples, sealed in a labeled plastic bag, into a suitable container for transport to the laboratory. Ensure the transport container, such as a cooler, will protect the samples from damage and allow easy handling

11. Submit the samples, following chain of custody (COC) protocol, for Transmission Electron Microscopy (TEM) analysis for LA Asbestos using the National Institute of Occupational Safety and Health (NIOSH) Method 7402. On the COC, request the lab store the samples indefinitely
12. Retain a copy of the chain-of-custody for the file

Upon your approval of this SAP, we will proceed with the sampling portion of the project. The sampling portion of the project is tentatively scheduled to begin July 10th, 2006, and continue for approximately two weeks. If you have any questions or comments, or if we can be of help in any other way, please feel free to call me in Helena (406.443.5210) or Ryan Behrends in our Billings office (406.248.9161).

Respectfully Submitted,



Aaron Shewman, P.E.
Project Coordinator



Ryan C. Behrends
Environmental Scientist

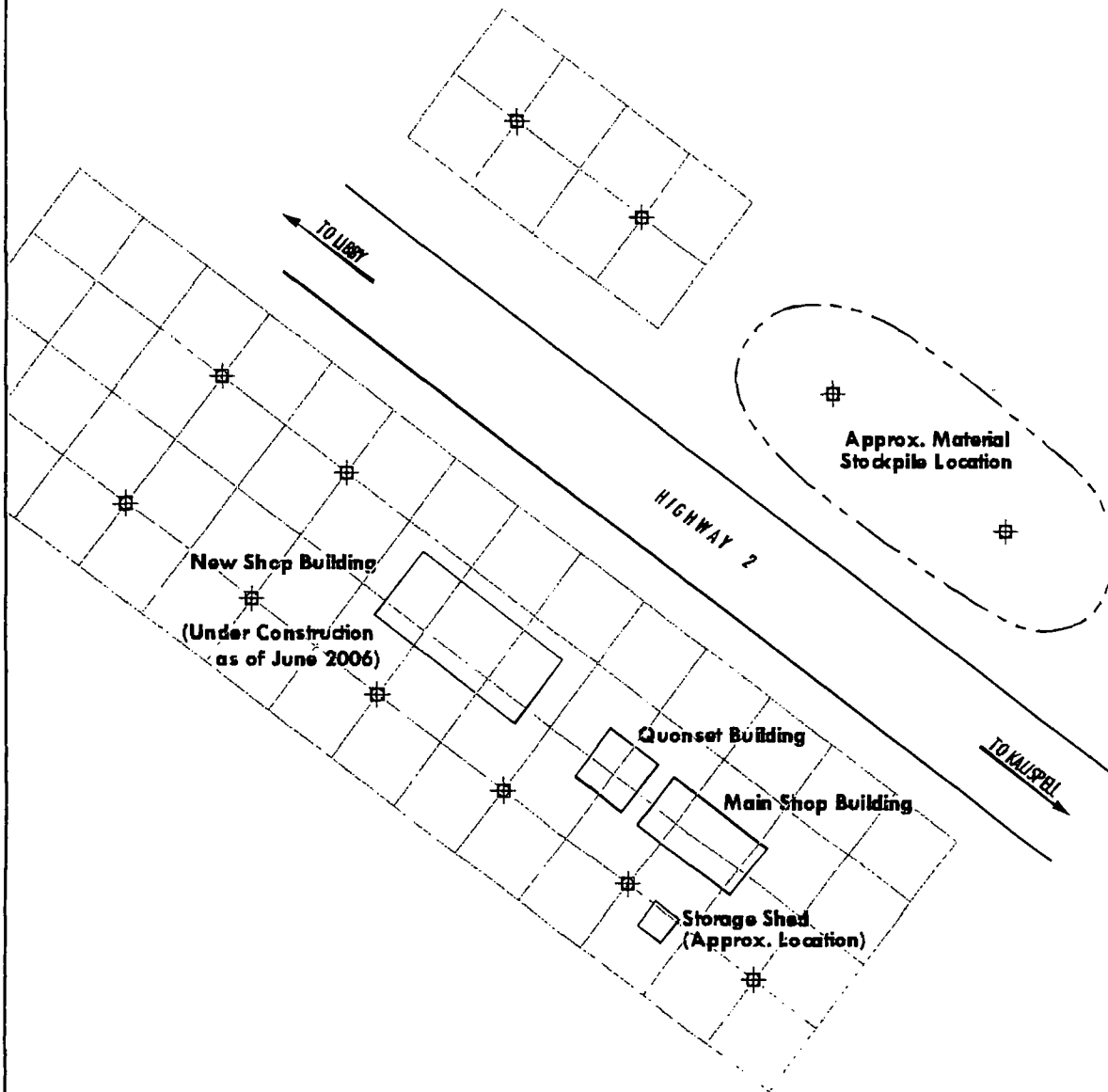
Attachments: A Figures
 B Soil and Air Sampling Field Forms
 C Applicable Libby Area Standard Operating Procedure
 D References

ATTACHMENT A
FIGURES



W.R. Grace
Vermiculite Mine

482



Source: MDT, 2001



0 Feet 100

MAXIM
TECHNOLOGIES

6561296.100

⊕ Proposed Soil Sample Location
(Approximate)

Site Map
Libby Maintenance Section Facility
Libby, Montana
FIGURE 3

ATTACHMENT B
SOIL AND AIR SAMPLING FIELD FORMS

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: _____

Inspector(s): _____ Sampling Date: _____

Facility/Building/Area: _____ Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILEPOST (To nearest 0.25)	DIGITAL PHOTO NUMBER	GPS READING (To four decimal places)		VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
						Latitude	Longitude				

AIR SAMPLE COLLECTION

Project: MDT Libby Air Sampling	Date:
Building:	Calibration Instrument:
Location:	Technician:
Job No.:	Checked By:

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and sampling procedures

Sample Number	Sample Description And Location	Pump ID	Start Time	Stop Time	Total Minutes	PRECALIBRATION			PRE Average Flow	POST CALIBRATION			POST Average Flow	Volume (liters)
						Test 1	Test 2	Test 3		Test 1	Test 2	Test 3		

ATTACHMENT C
APPLICABLE LIBBY AREA STANDARD OPERATING PROCEDURE

Date: May 20, 2003

SOP No. SRC-LIBBY-01 (Revision 1)

Title: QUALITATIVE ESTIMATION OF ASBESTOS IN COARSE SOIL BY VISUAL EXAMINATION USING STEREOMICROSCOPY AND POLARIZED LIGHT MICROSCOPY

Author Sally M. L. Gibson

Syracuse Research Corporation

SYNOPSIS: A standardized method is described for the examination of the coarse fraction (>1/4") of soil samples using stereomicroscopy and polarized light microscopy (PLM) to identify, segregate, and estimate the mass percent of asbestos in the sample matrix.

Received by QA Unit:

APPROVALS:

TEAM MEMBER

SIGNATURE/TITLE

DATE

EPA Region 8

Jane Goldade

5/20/03

Syracuse Research Corp.

WJ Bratten

5/20/03

Revision	Date	Reason for Revision
0	11/12/02	--
1	05/20/03	Provided clarification on dealing with very small particles.

TECHNICAL STANDARD OPERATING PROCEDURE
SRC-LIBBY-01

1.0 PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to provide a standardized screening method for the visual examination of the coarse fraction of previously sieved soil samples for evidence of asbestos mineral content using stereomicroscopy with confirmation of asbestos content by polarized light microscopy (PLM). This SOP incorporates salient components of EPA Test Method 600/R-93/116 *Method for Determination of Asbestos in Bulk Building Materials* and National Institute of Occupational Safety and Health (NIOSH) Method 9002 *Asbestos (bulk) by PLM*, Issue 2.

This procedure will be used by employees of contractors/subcontractors supporting USEPA Region 8 projects and tasks for the Libby, Montana, site. Deviations from the procedure outlined in this document must be approved by the USEPA Region 8 Remedial Project Manager or Regional Chemist prior to initiation of sample analysis.

2.0 PREREQUISITE TRAINING

Visual examination will be performed according to this SOP by a laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) and by analysts proficient either by education or experience in asbestos mineral identification by stereomicroscopy and PLM. Analyst familiarity with the procedural applications prescribed in EPA Test Method 600/R-93/116 and NIOSH Method 9002 is required.

Training as described in the Sampling and Analysis Plan, Remedial Investigation, Contaminant Screening Study, Libby Asbestos Site, Operable Unit 4, (CSS SQAPP [CDM 2002]) will be provided to laboratory personnel or laboratories with less than one year of project-specific experience by "mentors" from either Reservoir Environmental Services, Inc. or EMSL.

3.0 RESPONSIBILITIES

The CDM Laboratory Coordinator (LC) is responsible for overseeing the activities of the CDM Soil Preparation Laboratory and subcontracted laboratories performing sample analysis for the Libby, Montana, project. The LC is also responsible for checking all work performed and verifying that the work satisfies the specific tasks outlined by this SOP and the CSS SQAPP. It

TECHNICAL STANDARD OPERATING PROCEDURE
SRC-LIBBY-01

is the responsibility of the LC to communicate with the project personnel and subcontracted laboratory regarding specific analysis objectives and anticipated situations that require any deviation from the CSS SQAPP SOPs. In addition, it is the responsibility of the LC to communicate the need for any deviations from this SOP with the CDM Project Manager, USEPA Region 8 personnel (Remedial Project Manager or Regional Chemist.)

Subcontracted laboratory analysts performing the visual examination are responsible for adhering to the applicable tasks outlined in this SOP and substantiating components of the reference procedures (EPA 1993; NIOSH 1994) with the modifications contained herein.

4.0 EQUIPMENT

- Analytical balance - accurate to 0.01 g, range of 0.01 g to 1000 g (for weighing total sample)
- Analytical balance - accurate to 1 mg (for weighing asbestos)
- Traceable standards - major asbestos types
- Microscope - binocular stereomicroscope, 5-60X approximate magnification
- Microscope - polarized light, binocular or monocular with a cross hair reticle (or functional equivalent) and magnification of at least 8X
 - 10X, 20X, and 40X objectives
 - 360 degree rotatable stage
 - substage condenser with iris diaphragm
 - polarizer and analyzer which can be placed at 90 degrees to one another and calibrated relative to the cross-line reticle in the ocular
 - port for wave plates and compensators
 - wave retardation plate (Red I Compensator) with ~550 nanometer retardation and known slow and fast vibration directions
- Light Sources - incandescent or fluorescent

**TECHNICAL STANDARD OPERATING PROCEDURE
SRC-LIBBY-01**

- Tweezers, dissecting needles, scalpels, probes, razor knives, etc. - standard sample manipulation instruments/tools
- Microscope slides and cover slips
- Refractive index liquids
- Pre-tared glassine paper, glass plates, weigh boats, petri dishes, watchglasses, etc. - laboratory sample containers
- HEPA-filtered or Class 1 biohazard hood negative pressure
- Three-ring binder book- binders will contain Microscopic Examination Logbook Sheets (Attachment 1)

5.0 METHOD

Soils from the Libby, Montana site will be dried, sieved, and prepared according to the most recent revision of SOP ISSI-LIBBY-01, Soil Sample Preparation. The coarse fraction of the soil sample is defined as that portion of the sample which does not pass through a 1/4" sieve. The coarse fraction will be weighed, placed in a zip-top plastic bag, and labeled as described in Camp, Dresser, and McKee (CDM) SOP 1-3 (with project-specific modifications). The samples will be packaged and shipped by the soil preparation laboratory as described in CDM SOP 2-1 (with project-specific modifications) and transferred to the laboratory via chain-of-custody procedures described in CDM SOP 1-2 (with project-specific modifications).

The following sections describe the stereomicroscopic and PLM examination. Materials tentatively characterized as asbestos by stereomicroscopy will be isolated and subjected to confirmation by PLM. The mass % of Libby amphibole asbestos, other amphibole asbestos, and chrysotile asbestos in the coarse soil fraction will be calculated from the mass of each asbestos type positively identified by PLM and the original sample weight. Figure 1 provides an overview of the process.

TECHNICAL STANDARD OPERATING PROCEDURE
SRC-LIBBY-01

5.1 Stereomicroscopic Examination

The laboratory will receive the coarse fraction soil samples from the CDM Soil Preparation Laboratory. The entire sample will be weighed and placed in an appropriate container. The weight of each coarse sample will be recorded, along with the sample identification, on the Microscope Examination Logbook Sheet. The sample will be subject to stereomicroscopic examination and particle segregation as depicted Figure 1. The stereomicroscopic examination to identify and segregate asbestos includes:

- using multiple fields of view over the entire sample
- probing the sample by turning pieces over and breaking clumps where possible
- manipulating the sample using appropriate instruments/tools
- observing homogeneity, texture, friability, color and extent of any observed asbestos in the sample(s)

NOTE: Although the coarse fraction is prepared by sieving with a 1/4" screen, particles smaller than 1/4" may be present in the fraction due to adherence between coarse and fine particles. This may even include some very fine asbestos fibers. Because of the technical difficulty, the analyst should not attempt to physically segregate and weigh particles smaller than about 2-3 mm (1/10 inch). A particle this size is expected to have a mass of about 10-20 mg, which is less than 0.1% of a sample whose total mass is 25 grams. If no particles larger than 2-3 mm are present, this should be noted in the data sheet for each category of asbestos using the following code system:

- ND = No asbestos observed
- Tr = Trace levels of asbestos observed but not quantified

The weight fraction for any asbestos type marked "ND" or "Tr" in a given sample is not calculated and is left blank.

As the sample is examined, the analyst will continue segregation of the sample until the entire coarse soil fraction has been characterized as either "non-asbestos" or "tentatively identified asbestos." The tentatively identified asbestos particles will be examined by PLM, as described below. The stereomicroscopist will initial and date the Microscopy Examination Logbook Sheet.

TECHNICAL STANDARD OPERATING PROCEDURE
SRC-LIBBY-01

5.2 PLM

The coarse material tentatively identified as asbestos by stereomicroscopic examination will be subject to confirmation using PLM, as described in SOP SRC-LIBBY-03 (Revision 0) ("Analysis of Asbestos Fibers in Soil by Polarized Light Microscopy"). The PLM examination will be used to confirm that the particles tentatively classified as asbestos are actually asbestos, and will be assign each particles to one of three categories:

LA = Libby amphibole

OA = Other amphibole

C = Chrysotile

If OA is observed, the type of OA observed should be noted in the data sheet using the following code system:

- AMOS = Amosite
- ANTH = Anthophyllite
- CROC = Crocidolite
- UNK = Unknown

The total weight of each type of positively identified asbestos (LA, OA, C) will be determined and recorded on the Microscopic Examination Logbook Sheet, along with the analyst's initials and the date of the examination.

6.0 QUALITY ASSURANCE

Laboratories performing the examination must be accredited by NVLAP. "Calibration" should be verifiable for each microscopist in terms of project-specific training and the successful analysis of materials of known asbestos content (NVLAP test samples, in-house standards) similar to those anticipated to be observed in Libby, Montana soils. Additionally, references such as photographs of the asbestos minerals illustrating distinguishing properties should be available benchside during characterization.

Quality control samples as described in ISSI-LIBBY-01 (i.e., preparation duplicates) will not submitted for the coarse materials samples. The entire coarse fraction will be subject to examination.

TECHNICAL STANDARD OPERATING PROCEDURE
SRC-LIBBY-01

7.0 REFERENCES

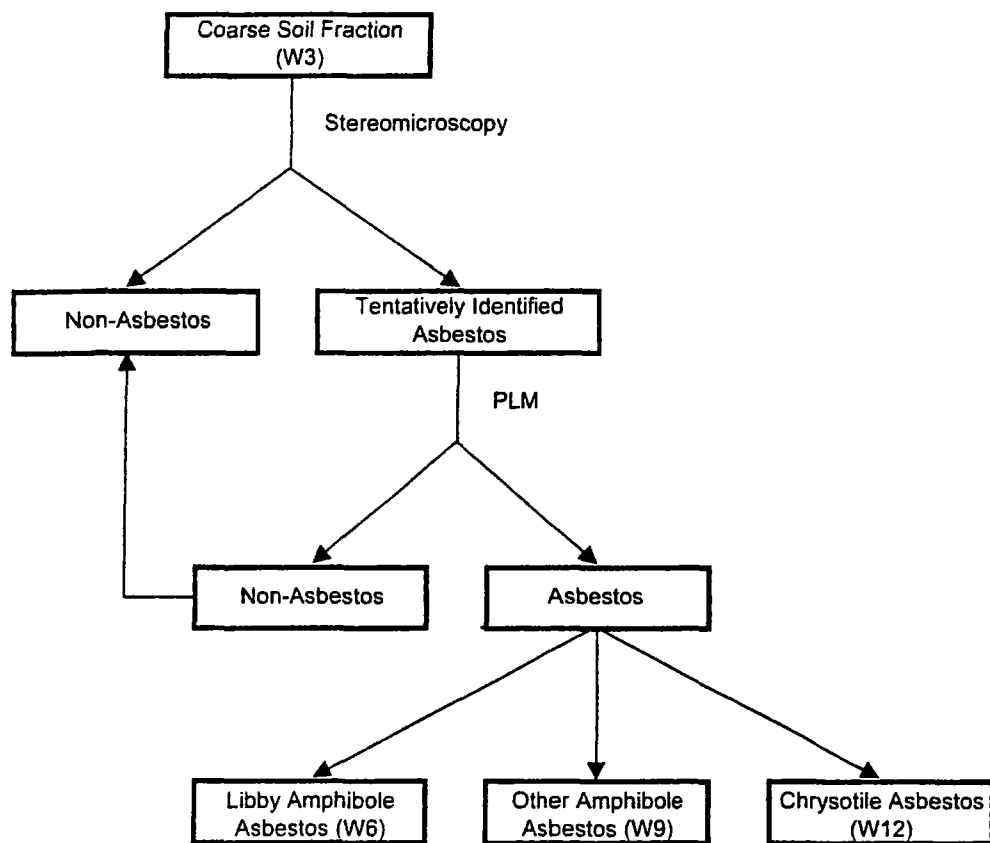
CDM 2002. *Sampling and Analysis Plan, Remedial Investigation, Contaminant Screening Study, Libby Asbestos Site, Operable Unit 4*. 3282-116-PP-SAMP-14187. Camp, Dresser and McKee Denver, Colorado. April.

NIOSH 1994. National Institute of Occupational Safety and Health (NIOSH) Method 9002 *Asbestos (bulk) by PLM*, Issue 2.

USEPA 1993. *Method for Determination of Asbestos in Bulk Building Materials*. 600/R-93/116.

TECHNICAL STANDARD OPERATING PROCEDURE
SRC-LIBBY-01

Figure 1. Overview of Sample Examination Process



W3 = Original coarse soil fraction mass (g)

W6 = If present in measurable quantities, mass (mg) of Libby amphibole

W9 = If present in measurable quantities, mass (mg) of other amphibole

W12 = If present in measurable quantities, mass (mg) of chrysotile

Codes used in the illustration (e.g., W3) correspond to Data Log Sheet

TECHNICAL STANDARD OPERATING PROCEDURE
SRC-LIBBY-01

ATTACHMENT 1

MICROSCOPIC EXAMINATION LOGBOOK SHEET

See attached electronic file "SRC-LIBBY-01 Data sheet and EDD v6.xls"

Example hard copy of data entry sheet shown on next page (for illustration purposes only).

Data Log Sheet v6 for SRC-LIBBY-01
Stereomicroscopic and Gravimetric Analysis of Coarse Soil

Lab Job No.

Page ____ of ____

 Calculated automatically in the "Electronic Data Entry" form. Do not enter data here.

[illegible]

Comment Codes (user-defined):

TECHNICAL STANDARD OPERATING PROCEDURE
SRC-LIBBY-01

**ATTACHMENT D
REFERENCES**

References

- Camp, Dresser, McKee, 2005. Contaminant Screening Study, Libby Asbestos Site, Operable Unit 4, Libby, Montana. Final Summary Report for the J. Neils Park and Montana State Highway 37 Investigations, Revision 1. December 15.
- Maxim, 2006. Work Plan and Cost Estimate for Asbestos Consulting and Industrial Hygiene Services in the Libby Area, Lincoln County, Montana. Task Order No. 605. May 22.
- MDT, 2006a. Task Order No. 605, Request for Asbestos Sampling, Analysis, and Related Industrial Hygiene Services in the Libby Area, Lincoln County, Montana. April 8.
- MDT, 2006b. Task Order No. 605, Request for Asbestos Sampling, Analysis, and Related Industrial Hygiene Services in the Libby Area, Lincoln County, Montana. May 26.

APPENDIX D
MDT ENCROACHMENT PERMIT AND TRAFFIC CONTROL PLAN

OWNER

Montana Department of Transportation

Encroachment Application And Permit

Printed on: June 19, 2006

Permit number

1162

Permit type

PERMANENT

Maintenance Division

KALISPELL

APPLICANT INFORMATION:

Name: AARON SHEWMAN

Address: 303 IRENE

City: HELENA

State: MT

Phone: 406-443-5210

Zip: 59604

Corporation Name: MAIXIM TECHNOLOGIES

Nature of Permit Desired:

SAMPLING OF R/W FOR ASBESTOS MATERIAL FOR EPA

ENCROACHMENT LOCATION INFORMATION:

<u>Sign Route</u>	<u>Beginning Reference Point:</u>	<u>Ending Reference Point:</u>
US2	023+0.000	037+0.000
<u>County:</u>	<u>Township:</u>	<u>Range:</u>
LINCOLN	T29N	R31W
<u>Section:</u>	<u>Qrtr.</u>	<u>Qrtr.</u>
11	Sec:	Sec:

Comments:

MAXIM WITH TAKE SOIL SAMPLES ON MDT RIGHT OF WAY WITHIN A FIVE MILE RADIUS OF LIBBY ON US2, MT 37, SEC 267(RIVER ROAD), SEC 482(FARM TO MARKET), SEC 567(PIPE CREEK ROAD). THIS WORK IS BEING DONE FOR MDT ENVIRONMENTAL IN HELENA(BRIAN GOODMAN)

ENCROACHMENT PERMIT INFORMATION:

Application Date

19-JUN-06

Permit Issue Date

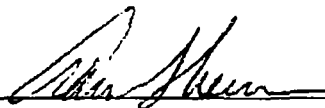
19-JUN-06

Permit End Date

Permit Class

Approved by: STEPHEN L. HERZOG

(Approval Signature)

x 
(Applicant Signature)

Montana Department of Transportation

Encroachment Application And Permit

Printed on: June 19, 2006

- 1 TERM. This permit shall be in full force and effect from the date hereof until revoked as herein provided.
- 2 REVOCATION. This permit may be revoked by State upon giving 45 days notice to Permittee by ordinary mail, directed to the address shown in the application hereto attached, but the State reserves the right to revoke this permit without giving said notice in the event Permittee breaks any of the conditions or terms set forth herein.
- 3 COMMENCEMENT OF WORK. No work shall be commenced until Permittee notifies Field Maintenance Chief shown in application when he proposes to commence work.
- 4 CHANGES IN HIGHWAY. If State changes highway necessitating changes in structures or installations installed under this permit, Permittee shall make necessary changes without expense to State.
- 5 STATE SAVED HARMLESS FROM CLAIMS. In accepting this permit the Permittee, its/his successors or assigns, agree to protect the State and save it harmless from all claims, actions or damage of every kind and description which may accrue to, or be suffered by, any person or persons, corporations or property by reason of the performance of any such work, character of materials used, or manner of installations, maintenance and operation or by the improper occupancy of said highway right of way, and in case any suit or action is brought against the State and arising out of, or by reason of any of the above causes, the Permittee, its/his successors or assigns, will, upon notice to it/him of the commencement of such action, defend the same at its/his sole cost and expense and satisfy any judgment which may be rendered against the State in any suit or action.
- 6 PROTECTION OF TRAFFIC. Insofar as the interests of the State and the traveling public are concerned, all work performed under this permit shall be done under the supervision of the Field Maintenance Chief of the Montana Department of Transportation and his authorized representatives, and he/they shall indicate the traffic control devices, the lighting thereof at night, placing of flagmen and watchmen, the acceptable manner in which traffic is to be handled, and shall specify to Permittee how road surface is to be replaced if it is disturbed during operations, but said supervision shall in no way operate to relieve or discharge Permittee from any of the obligations assumed by acceptance of this permit, and especially those set forth under Section 5 hereof.
- 7 HIGHWAY DAMAGE. If the work done under this permit interferes in any way with the drainage of the State highway affected, Permittee shall, at its/his own expense, make such provisions as the State may direct to take care of said drainage.
- 8 RUBBISH AND DEBRIS. Upon completion of work contemplated under this permit, all rubbish and debris shall be immediately removed and the roadway and roadside left in a neat and presentable condition satisfactory to the State.
- 9 WORK TO BE SUPERVISED BY THE STATE. All work contemplated under this permit shall be done under the supervision of and to the satisfaction of the authorized representative of the State, and the State hereby reserves the right to order the change of location or removal of any structure or installation authorized by this permit at any time, said changes or removal to be made at the sole expense of the Permittee.
- 10 STATES RIGHT NOT TO BE INTERFERED WITH. All such changes, reconstruction or relocation shall be done by Permittee in such a manner as will cause the least interference with any of the State's work, and the State shall in no wise be liable for any damage to the Permittee by reason of any such work by the State, its agents, contractors or representatives, or by the exercise of any right by the State upon the highways by the installations or structures placed under the permit.
- 11 REMOVAL OF INSTALLATIONS OR STRUCTURES. Unless waived by the State, upon termination of this permit, the Permittee shall remove the installations or structures contemplated by this permit and restore the premises to the condition existing at the time of entering upon the same under this permit, reasonable and ordinary wear and tear and damage by the elements, or by circumstances over which the Permittee has no control, excepted.
- 12 MAINTENANCE AT EXPENSE OF PERMITTEE. Permittee shall maintain, at its/his sole expense the installations and structures for which this permit is granted, in a condition satisfactory to the State.
- 13 STATE NOT LIABLE FOR DAMAGE TO INSTALLATIONS. In accepting this permit the Permittee agrees that any damage or injury done to said installations or structures by a contractor working for the State, or by any State employee engaged in construction, alteration, repair, maintenance or improvement of the State highway, shall be at the sole expense of the Permittee.
- 14 STATE TO BE REIMBURSED FOR REPAIRING ROADWAY. Upon being billed therefore Permittee agrees to reimburse State for any expense incurred in repairing surface of roadway due to settlement at installation, or for any other damage to roadway as a result of the work performed under this permit.

No Occupancy Agreement or Permit will be approved until all of the conditions of the checklist have been satisfied. The accuracy of the information is the sole responsibility of the applicant.

ENVIRONMENTAL CHECKLIST FOR ENCROACHMENTS AUTHORIZED IN RIGHT OF WAY

Project No.: _____ ID: _____ Designation: _____

Proposed Installation Date: July 1 – September 1 2006

Milepost (Station) US Highway 2 from MP 28.0 to 38.0, S-567 from MP 0.0 to 4.5, S-482 from MP 0.0 to 2.5, S-280 from MP 0.0 to 4.0, MT 37 (P-33) from MP 0.0 to 9.5 to Milepost (Station) _____

Utility/Owner Name: Tetra Tech, Inc. Address: 303 Irene Street, Helena, MT 59601

Type of Proposed Occupancy: Using hand-tools, collect surface (0 to 6 inch depth) soil samples within 10 feet of the highway or edge of pavement

IMPACTS ON THE PHYSICAL ENVIRONMENT (TO BE COMPLETED BY APPLICANT)		
Resource	[Y/N] Potential Impacts and Mitigation Measures (Use attachments if necessary)	
	Yes	No
1. Does the proposed action have an impact on any cultural resource? (Section 106-NHPA)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Does the proposed action have an impact on water quality? *	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Does the proposed project have impacts to wetlands? *	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3a. If the answer to number 3 is yes, is a Clean Water Act ' 404 permit authorization required?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is there documented controversy on environmental grounds? (For instance, has the applicant received a letter or petition from an environmental organization?)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Does the proposed project involve hazardous waste site[s]? (Superfund, spills, underground storage tanks, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Are there any recorded occurrences, and/or critical habitat for Federally-listed Threatened or Endangered Species in the vicinity of the proposed activity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Is the proposed installation a portion of a project which may require other governmental permits, licenses, easements, etc.? If the answer is "yes," please describe in detail the full extent of the project and any other permits, licenses, easements, etc., which may be necessary for the utility to acquire. (Use attachments as necessary.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Does the proposed action significantly impact the transportation network in terms of increased traffic volumes, increased weight or increased delays on state roadways?	<input type="checkbox"/>	<input checked="" type="checkbox"/>


Note: Encroachment includes bulk asbestos soil sampling along highways in the vicinity of the town of Libby, Montana.

9. Does the proposed action have <u>significant</u> impacts on other forms of transportation (rail, transit or air movements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--	--------------------------	-------------------------------------

* If the answer to 2 or 3 is "yes," please see the Five Categories of Mitigation on page 2 of this form in order to address mitigation measures.

10. Magnitude and significance of potential impacts: To be completed by applicant.

No significant impacts anticipated.

Checklist prepared by:  Aaron Shewman, Project Manager 06/19/2006

Applicant	Title	Date
-----------	-------	------

Reviewed for completeness by:

MDT District Representative	Title	Date
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Approved by:

Environmental Services (when items 1, 2, 3, 4, 5, 6 or 7 are checked "Yes")	Title	Date
--	-------	------

Transportation Planning (when items 8 or 9 are checked "Yes")	Title	Date
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- A. The applicant shall complete the checklist indicating a "Yes" or "No" for each item, except number 10 which may require a narrative response.
- B. When a "Yes" is indicated on any number of items 1 through 9, the applicant must explain the impacts, and for items 1 through 5 any appropriate mitigation measures that will be taken. Use attachments if necessary. If the applicant checks "No," and the District feels there may be potential impacts, the Environmental Checklist must be forwarded to Environmental Services.
- C. If a "yes" is checked in item 6 please provide information naming the particular specie(s) and the nature of the occurrence, i.e. within the project limits and possibly capable of being directly impacted by the project; or, in the vicinity of the project area only."
- D. If the applicant checks "Yes" for any one item, the occupancy agreement or permit along with the checklist and the applicant's mitigation proposal shall be submitted to MDT Environmental Services.
- E. When the applicant checks a "Yes" item, the applicant cannot be authorized to proceed with the proposed work until Environmental Services and/or Transportation Planning, as appropriate, reviews the information and signs the checklist.
- F. Applicant will obtain all necessary permits or authorizations from other entities with jurisdiction prior to beginning installation of the subject facility.

The Five Categories of Mitigation Under the CEQ Regulations

• Avoiding the impact by not taking certain action or parts of an action

• Minimizing impacts by limiting the degree or magnitude of the action and its implementation

• Rectifying the impact by repairing, rehabilitating, or restoring the affected environment

• Reducing or eliminating the impact over time by preservation and maintenance during the life of the action

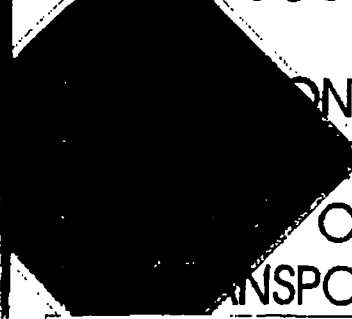
• Compensating for the impact by replacing or providing substitute resources or environments

TRAFFIC CONTROL PLAN

Traffic control will be in accordance with the Montana Department of Transportation's Guidelines for Work Zone Safety, October 1994, "Shoulder Work with Minor Encroachment".

This will include Maxim personnel providing and placing one, 48-inch x 48-inch, free-standing "Road Work Ahead" sign 500-feet in advance of the shoulder work area in both directions from the work area. Maxim will park the work vehicle as far off the pavement as possible if the right of way is wide enough to allow it. If the right of way is too narrow to allow this, then Maxim personnel will park the work vehicle as far onto the road shoulder as possible and mark the vehicle location with at least six, 4-foot high traffic control candles. In addition, the Maxim work vehicle will be equipped with a portable, yellow, flashing light that will be placed on top of the vehicle and operated throughout the work day.

All Maxim personnel will be required to wear fluorescent orange or green vests.



ONTANA
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OF
TRANSPORTATION



GUIDELINES FOR

WORK

SAFETY

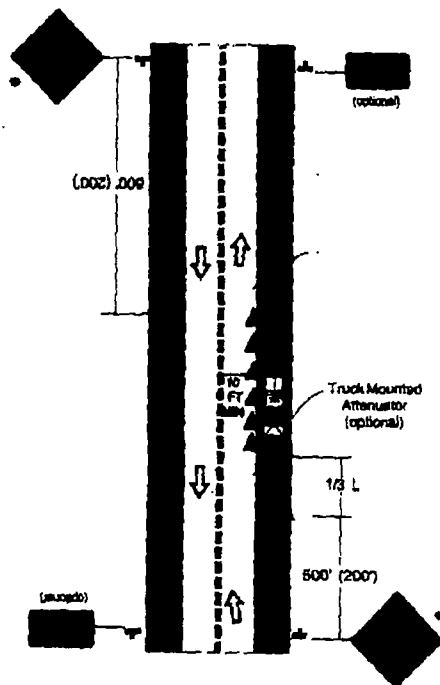
Guidelines
Utilities



October



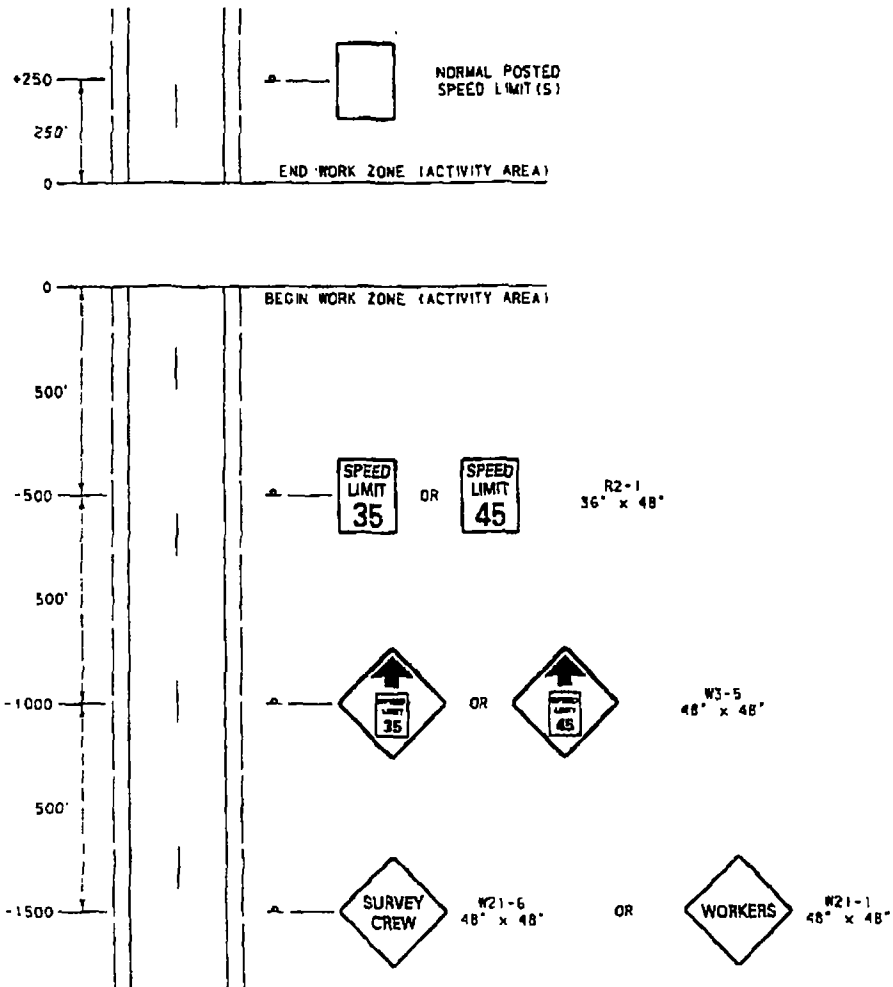
Shoulder Work With Minor Encroachment



NOTES:


1. The treatment shown may be used on a minor road having low speeds. For higher speed traffic conditions, a lane closure should be considered.
2. The procedure shown should be adequate to carry bi-directional traffic at reduced speed through the activity area, provided the lanes are at least ten feet wide.
3. Where the opposite shoulder is suitable for carrying traffic and of adequate width, traffic lanes may be shifted by use of closely spaced channelizing devices, provided ten-foot wide lanes are maintained.
4. Additional advance warning may be appropriate, such as a ROAD NARROWS sign.
5. Portable concrete barriers may be used along the work space.
6. The protection vehicle is optional if taper and channelizing devices are used. For short-duration work, the taper and channelizing devices are optional if the protection vehicle with an activated flashing yellow light is used.

***For Utility Operations Use: "UTILITY WORK AHEAD"**



NOTES:

- ① SHORT DURATION ACTIVITIES ARE DEFINED AS THOSE LASTING UP TO ONE HOUR.
- ② USE THIS SIGN LAYOUT WHEN WORK IS TO TAKE PLACE ON THE TRAVELED WAY. SIGNING FOR WORK ON OR NEAR THE SHOULDER MAY BE LIMITED TO THE USE OF ONE 48\"/>

DETAILED DRAWING	
REFERENCE	DWG. NO
STANDARD SPEC.	618-34
SECTION 618	
SHORT DURATION CREW SIGNING	
EFFECTIVE: FEBRUARY 2005	
 MONTANA DEPARTMENT OF TRANSPORTATION	

APPENDIX E
APPLICABLE LIBBY AREA STANDARD OPERATING PROCEDURES

Date: January 7, 2000 (Rev. # 1)

SOP No. ISSI-LIBBY-01

Title: SOIL SAMPLE PREPARATION

APPROVALS:

Author Adrian Bradley ISSI Consulting Group Inc. Date: December 22, 1999

SYNOPSIS: A standardized method for homogenization of surface soil samples is described. Protocols for sample preparation and handling are provided.

Received by QA Unit:

REVIEWS:

TEAM MEMBER

SIGNATURE/TITLE

DATE

EPA Region 8

[Signature]

1/7/00

ISSI Consulting Group, Inc.

WJ Binter

1/7/00

Revision Date	Reason for Revision
1/7/99	Incorporation of sieving to the sample preparation.

TECHNICAL STANDARD OPERATING PROCEDURE

SOIL SAMPLE PREPARATION

1.0 PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to provide a standardized method for homogenizing surface soil samples. This procedure will be used by employees of USEPA Region 8 and by contractors/subcontractors supporting USEPA Region 8 projects and tasks. This SOP describes the equipment and operations used for homogenizing surface soil samples in a manner that will produce data that can be used to support risk evaluations. Site-specific deviations from the procedures outlined in this document must be approved by the USEPA Region 8 Remedial Project Manager, or Regional Toxicologist prior to initiation of the sampling activity.

2.0 RESPONSIBILITIES

The Field Project Leader (FPL) may be an USEPA employee or contractor who is responsible for overseeing the surface soil sampling activities. The FPL is also responsible for checking all work performed and verifying that the work satisfies the specific tasks outlined by this SOP and the Project Plan. It is the responsibility of the FPL to communicate with the Field Personnel regarding specific collection objectives and anticipated situations that require any deviation from the Project Plan. It is also the responsibility of the FPL to communicate the need for any deviations from the Project Plan with the appropriate USEPA Region 8 personnel (Remedial Project Manager, or Regional Toxicologist).

Field personnel performing surface soil sampling are responsible for adhering to the applicable tasks outlined in this procedure while homogenizing surface soil samples.

3.0 EQUIPMENT

- General purpose laboratory oven - must be capable of maintaining a constant temperature of approximately 103-105°C.
- Sample drying trays - capable of holding an even layer of the complete sample volume of each sample. To minimize the decontamination effort, disposable drying trays are recommended.
- Analytical balance - accurate to 0.1 g, range of 0.1 g to 1000 g
- Riffle splitter - with 3/4 to 1 inch chutes to split samples
- Stainless steel or teflon scoop or spoon - for transferring samples
- Collection containers - plastic ziplock bags.

TECHNICAL STANDARD OPERATING PROCEDURE

SOIL SAMPLE PREPARATION

- Gloves - for personal protection and to prevent cross-contamination of samples. May be plastic or latex. Disposable, powderless.
- Field clothing and Personal Protective Equipment - as specified in the Health and Safety Plan.
- Field notebook - used to record progress, any problems or observations.
- Permanent marking pen - used to label sample containers.
- Three-ring binder book - binders will contain Soil Preparation Sheets, Field Split Sample Log sheets, and sample labels.
- Trash Bag - used to dispose of gloves and wipes.

4.0 METHOD SUMMARY

Soil samples will be dried in a standard laboratory oven, then homogenized and split for subsequent analysis.

5.0 BULK SOIL DRYING

Set the oven temperature to 103-105 °C (not to exceed 115 °C). Establish the drying time by weighing a representative sample before drying, at estimated completion, and following an additional 15 minute drying time to confirm stable weight. Verify that the sample is completely dry using the "squeeze test", squeezing a portion of the sample between a freshly gloved thumb and forefinger. Sample dryness is indicated by a lack of cohesiveness in the soil.

Prior to drying each sample, record the weight on the Sample Preparation Logbook Sheet. Spread the sample on the drying tray in an even layer to promote even drying. Check the oven temperature to verify that proper temperature has been reached. Mark each tray with the sample ID number. Place the drying trays containing the samples in the oven. Leave the samples in the oven until completely dry. Verify that each sample is dry by testing cohesiveness using a freshly gloved thumb and forefinger. Record the weight after drying on the Sample Preparation Logbook Sheet. Document the sample drying time for each sample on the Soil Preparation Data Sheet (Attachment 1).

When samples are dry, remove from the oven area and place in the ventilation area. Before placing samples in the ventilation area, verify that the hood is turned on. A new pair of gloves must be worn for each sample.

The sample should be coarse sieved and the mesh size recorded. Pour the material which passed through the sieve into a new sample bag, and mark the outside of the bag with the sample ID.

TECHNICAL STANDARD OPERATING PROCEDURE

SOIL SAMPLE PREPARATION

Gently knead contents of the bag to break up any remaining soil clumps. Completely seal the bag, then mix by turning the bag end-over-end slowly, for a minimum of ten times.

6.0 SAMPLE SPLITTING

Following the procedures outlined in Section 5.0, the soil sample should be well-homogenized. With the hood turned on, open the sample bag and use a clean and dry riffle splitter to split each sample.

The following method for splitting a soil sample was adapted from EPA 540-R-97-028 (USEPA, 1997). The sample is split by placing soil onto a splitter tray. Shake the tray to evenly distribute the sample. Place the long lip of the tray against the long lip of the splitter hopper and slowly rotate the tray so that the sample slowly empties into the splitter and slides down the near wall of the hopper to the chutes, collecting the sample in two receiving trays. Tap the sample tray vigorously several times to free any remaining material. Tap the splitter to facilitate the flow of all material through the chutes into the receiving trays. The corners and nooks of the splitter may be cleaned with a coarse nylon brush.

Pour the material from one of the receiving trays into a clean bucket and tap the tray vigorously to assure complete transfer. This portion is designated for archive. The original sample tray (which is now empty), and the emptied receiving tray should be placed under the splitter as the new receiving trays.

Repeat the process of dispersing the remaining sample material (containing half the mass of the original sample) by shaking the sample tray so that it is uniformly distributed. Repeat the procedure described above for splitting the sample. At the end of the second split, carefully transfer the material from each of the receiving trays into a clean, pre-weighed sample bag to be weighed and packaged for shipment to the laboratory and to W.R. Grace. Record each split sample ID, and the original sample ID on the Field Split Sample Log sheet (Attachment 1).

7.0 FIELD DOCUMENTATION

Each sample ID must be recorded on the data sheets. Original sample ID numbers are recorded on the Soil Preparation Sheets, and the Field Split Sample Log sheets. When the original sample is split, the original sample ID number, and each new sample, must be recorded.

In addition, a field notebook should be maintained by each individual or team that is preparing samples. For each day that samples are processed, the following information should be collected.

- date
- time
- personnel

TECHNICAL STANDARD OPERATING PROCEDURE

SOIL SAMPLE PREPARATION

- weather conditions
- analytical balance calibration
- drying oven temperature
- descriptions of any deviations to the Project Plan and the reason for the deviation

Field personnel will prepare the proper type and quantity of quality control samples as prescribed in the Project Plan.

8.0 DECONTAMINATION

All non-dedicated equipment used during sample preparation must be decontaminated prior to use. It is recommended that disposable oven trays be used to minimize the decontamination effort. Stainless steel or teflon scoops or spoons, splitters, sieves and drying trays that will be re-used, must be decontaminated with de-ionized (DI) water and disposable wipes or towels. DI water is poured over the equipment, then wiped, then rinsed again with DI water. If soil particles are visible on any of the equipment, repeat this procedure until the equipment is clean. All equipment must be dry before it is re-used.

9.0 GLOSSARY

Project Plan - The written document that spells out the detailed site-specific procedures to be followed by the Project Leader and the Field Personnel.

11.0 REFERENCES

American Society for Testing and Materials. 1998. Standard Practice for Reducing Samples of Aggregate to Testing Size, ASTM Designation: C 702 - 98, 4 p.

USEAP. 1997. Superfund Method for the Determination of Releasable Asbestos in Soils and Bulk Materials. EPA 540-R-97-028.

TECHNICAL STANDARD OPERATING PROCEDURE
SOIL SAMPLE PREPARATION

ATTACHMENT 1

LIBBY SUPERFUND SITE STANDARD OPERATING PROCEDURE
APPROVED FOR USE IN LIBBY PE STUDY ONLY

ANALYSIS OF SOIL-LIKE MEDIA FOR ASBESTOS BY POLARIZED LIGHT MICROSCOPY

Date: April 20, 2004

SOP No. SRC-LIBBY-03 (Revision 1)

Title: ANALYSIS OF ASBESTOS FIBERS IN SOIL BY POLARIZED LIGHT
MICROSCOPY

Author: William Brattin

SYNOPSIS: A semi-quantitative method for identifying and quantifying asbestos fibers in soil using polarized light microscopy (PLM) is provided. This method is based on NIOSH Method 9002, EPA Method 600/R-93/116, and CARB Method 435, with project-specific modifications intended specifically for use at the Libby Superfund Site.

APPROVALS:

TEAM MEMBER	SIGNATURE/TITLE	DATE
USEPA Region 8	<u>[Signature]</u>	<u>4/20/04</u>
Syracuse Research Corp.	<u>William J. Brattin</u>	<u>04/20/04</u>

Revision	Date	Principal Changes
0	03/03/03	--
1	12/11/03	Clarify binning assignment of samples at 0.2%

LIBBY SUPERFUND SITE STANDARD OPERATING PROCEDURE
APPROVED FOR USE IN LIBBY PE STUDY ONLY

ANALYSIS OF SOIL-LIKE MEDIA FOR ASBESTOS BY POLARIZED LIGHT MICROSCOPY

1.0 PURPOSE

The purpose of this standard operating procedure (SOP) is to provide a standard approach for semi-quantitative analysis of asbestos in samples of soil or other soil-like materials using polarized light microscopy (PLM). This SOP is specifically intended for application at the Libby Superfund site.

2.0 SCOPE AND APPLICATION

This method is intended mainly for analysis of asbestos in soil or other similar soil-like media. This method is appropriate for the analysis of all types of asbestos fibers, including both chrysotile and amphiboles, including those that are characteristic of the Libby site.

3.0 RESPONSIBILITIES

It is the responsibility of the laboratory supervisor to ensure that all analyses and quality assurance procedures are performed in accord with this SOP, and to identify and take appropriate corrective action to address any deviations that may occur during sample preparation or analysis.

The laboratory supervisor should also communicate with project managers at EPA or their oversight contractors any situations where a change from the SOP may be useful, and must receive approval from EPA for any deviation or modification from the SOP before proceeding with sample preparation and analysis.

4.0 METHOD DESCRIPTION

The soil sample to be evaluated for asbestos content by PLM is examined under stereomicroscopy and under PLM (3-5 slides per sample) to estimate the amount of asbestos present. Quantification of the amount of asbestos present may be done either using a visual estimation approach or by a point counting approach, as specified in the Chain of Custody request. In either case, the concentration of Libby amphibole asbestos in the sample is estimated in terms of mass fraction (i.e., percent asbestos by weight) based on the use of project-specific reference materials (calibration standards).

LIBBY SUPERFUND SITE STANDARD OPERATING PROCEDURE
APPROVED FOR USE IN LIBBY PE STUDY ONLY

ANALYSIS OF SOIL-LIKE MEDIA FOR ASBESTOS BY POLARIZED LIGHT MICROSCOPY

5.0 DETAILED METHOD

5.1 Basic Methods

All qualitative and quantitative analyses are to be performed in general accordance with the methods and techniques specified in NIOSH 9002, EPA 600/R-93/116, and CARB Method 435. Project-specific modification, clarifications, and requirements are provided below.

5.2 Visual Estimation Approach

5.2.1 Classification of Asbestos Mineral Type

Based on fiber attributes (morphology, refractive index, color, birefringence, etc.), asbestos in the sample is classified into one of three categories:

Code	Description	Notes
LA	Libby Amphibole	Refractive index values for LA span the standard values for tremolite/actinolite (EPA 1993), but may include values for other similar amphiboles (e.g., winchite, richterite) characteristic of the mine at Libby. Based on analysis of 4 different samples from the mine (Wylie and Verkouteren 2000; USGS, unpublished data; Verkouteren, personal communication), observed refractive indices of Libby amphiboles range from about 1.629-1.640 and 1.614-1.623; with a birefringence of about 0.017. The full range of refractive indices of samples from the mine may be somewhat greater.
OA	Other amphibole	Includes amphibole forms (e.g., amosite, crocidolite, anthophyllite) that are not thought to occur in significant amount at the mine in Libby
C	Chrysotile	

LIBBY SUPERFUND SITE STANDARD OPERATING PROCEDURE
APPROVED FOR USE IN LIBBY PE STUDY ONLY

ANALYSIS OF SOIL-LIKE MEDIA FOR ASBESTOS BY POLARIZED LIGHT MICROSCOPY

5.2.2 *Estimation of LA Mass Percent*

The visual area estimation is a semi-quantitative approach that requires the microscopist to estimate the area fraction of the total material present in a field of view that consists of asbestos material. Because this estimation may be difficult, especially at low concentration values, and because the desired output is an estimate of mass fraction (rather than area fraction), all visual estimates of Libby amphibole content will be performed using a set of site-specific reference materials (calibration standards) as a frame of reference. These reference material will contain either 0.2 % or 1.0% Libby amphibole by weight¹, and have been prepared for analysis using the same approach as for field samples. Using the two reference concentrations (0.2% and 1.0%) as a visual guide, the microscopist will evaluate the field sample and report the results as follows:

PLM Laboratory Report			Description
Qual	Conc (wt.%)	Bin	
ND		A	Asbestos was not observed in the field sample
Tr		B1	Asbestos was observed in the field sample at a level that appeared to be lower than the 0.2% reference material
<	1	B2	Asbestos was observed in the field sample at a level that appeared to be approximately equal to or greater than the 0.2% reference material but was less than the 1% reference material.
	1, 2, 3, etc	C	Asbestos was observed in the field sample at a level that appeared to equal or exceed the 1% standard. In this case, the mass percent is estimated quantitatively.

"ND" (not detected) in the Qualifier column is used for all samples in which asbestos is not observed under stereomicroscopy and is also not detected in five (5) different PLM slides

¹ The nominal mass fraction of the reference materials (calibration standards) is based on the gravimetric fraction of the material that is soil and the amount that is spiking material, adjusted for the fraction of the spiking material that is LA. For example, if the spiking material were estimated to contain 85% LA by mass, then the 1.0% calibration standard would contain 1.18 grams of spiking material (1.00 grams of LA) per 100 grams of calibration standard. Because the estimate of LA content of the spiking material is approximate, the true concentration of a calibration material may not be precisely equal to the nominal value.

LIBBY SUPERFUND SITE STANDARD OPERATING PROCEDURE
APPROVED FOR USE IN LIBBY PE STUDY ONLY

ANALYSIS OF SOIL-LIKE MEDIA FOR ASBESTOS BY POLARIZED LIGHT MICROSCOPY

prepared using representative sub-samples of the test material. These samples are assigned to **Bin A**.

"Tr" (trace) in the Qualifier column is used for all samples in which asbestos is observed either under stereomicroscopy or in at least one out of 3-5 PLM slides prepared from representative sub-samples of the test material, and in which the amount of asbestos present appears to be less than the 0.2 % reference material. These samples are assigned to **Bin B1**.

"<" (less than) in the Qualifier column and 1 in the Concentration column is used for all samples in which asbestos is observed either under stereomicroscopy or in PLM slides prepared from representative sub-samples of the test material, and in which the amount of asbestos present appears to be equal to or greater than the 0.2 % reference material but less than the 1% reference material. These samples are assigned to **Bin B2**.

A numeric value (1, 2, 3, etc) in the Concentration column without an entry in the Qualifier column is used for all samples in which asbestos is observed either under stereomicroscopy or in PLM slides prepared from representative sub-samples of the test material, and in which the amount of asbestos present appears to be similar to or greater than the 1 % reference material. These samples are assigned to **Bin C**.

Note that because these reference materials are based on Libby amphibole, they are not appropriate for estimating the mass percent of other types of asbestos (chrysotile, other types of asbestos). Therefore, if any asbestos types besides Libby amphibole are observed, the reported values for those samples should be in units of area percent.

5.3 Point Counting Approach

5.3.1 Counting Procedure

Any analysis in which evaluation by point counting is requested will be performed in general accordance with the descriptions provided in EPA/600/R-93/116 and CARB Method 435. The total number of particles to be counted (generally 400 or 1000) will be specified in the Chain of Custody request.

LIBBY SUPERFUND SITE STANDARD OPERATING PROCEDURE
APPROVED FOR USE IN LIBBY PE STUDY ONLY

ANALYSIS OF SOIL-LIKE MEDIA FOR ASBESTOS BY POLARIZED LIGHT MICROSCOPY

Take eight sub-samples of the soil sample and mount each separately with the appropriate refractive index liquid. The preparations should not be heavily loaded. Each sample should be uniformly dispersed to avoid overlapping particles and allow 25-50% empty area within the fields of view.

An ocular reticule (point array) or cross-hair is used to visually superimpose points on the microscope field of view. Count 1/8 of the total points required on each of the 8 slides (e.g., 50 non-empty points per slide for a 400 point count and 125 non-empty points per slide for a 1000 point count). For each non-empty point counted, assign the particle that is present at the point into one of four bins:

- Not asbestos
- Libby asbestos (LA)
- Other asbestos (OA)
- Chrysotile asbestos (C)

In order for a particle to be counted as asbestos, the aspect ratio must be $\geq 3:1$.

After the required total number of non-empty points have been counted, record the total number of points in the LA, OA and C bins on the point counting data sheet.

5.3.2 Estimation of Mass Percent

Like visual estimation, the output of the point counting approach is an estimate of area fraction, not mass fraction. For this site, point-count estimates of area fraction for Libby amphibole particles will be converted into estimates of mass fraction using a standard curve approach.

The standard curve will be prepared using a series of site-specific reference materials (calibration standards) containing 0%, 0.2%, 0.5%, 1%, or 2% Libby amphibole. The area fraction of each reference material will be estimated by the point counting approach in quadruplicate. The standard curve will be prepared by plotting the mean area fraction determined by point counting versus the mass percent in the reference material. The mass fraction of a field sample will be determined by measuring the area fraction of the field sample and locating the mass fraction that corresponds to that area fraction on the standard curve.

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ANALYSIS OF SOIL-LIKE MEDIA FOR ASBESTOS BY POLARIZED LIGHT MICROSCOPY

Because the standard curve is based on Libby amphibole, it is not appropriate to utilize this standard curve for other types of asbestos. Therefore, if any asbestos types besides Libby amphibole are observed, the reported values for those samples should be in units of area percent.

6.0 APPARATUS AND MATERIALS

Polarized light microscope, with lens and filters
Stereomicroscope (approximately 10-45x)
Petri dish for stereomicroscopic sample examination
Spatula and forceps
Glass slides and cover slips
Refractive Index (RI) oils
Reference Materials (Calibration Standards)

- Soil containing 0.2% LA by mass
- Soil containing 0.5% LA by mass
- Soil containing 1.0% LA by mass
- Soil containing 2.0% LA by mass

Laboratory log book
Data recording sheet (Attachment 1)

7.0 QUALITY ASSURANCE/QUALITY CONTROL

7.1 Precision and Accuracy

PLM by visual estimation and point counting are both semi-quantitative methods. For the purposes of this project, the accuracy and precision of the method are evaluated by measuring the frequency with which samples are assigned to the correct "bins". Data on precision and accuracy of bin assignment will be collected in the future and used to establish performance criteria for this project.

7.2 Method Proficiency

At present, sufficient data are not available to establish a quantitative procedure for method proficiency demonstration. As results become available, a procedure will be established and

LIBBY SUPERFUND SITE STANDARD OPERATING PROCEDURE
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applied, based on the analysis of a set of blind Performance Evaluation materials and assessing the frequency of correct bin assignments. If the assignments reported by a laboratory are within acceptance criteria bounds (see Section 7.1), then that laboratory will be deemed proficient. If not, remedial actions must be taken to address the errors before work may begin by that laboratory.

8.0 RECORDS

8.1 PLM Data Forms

Analysts will record analytical results using the electronic data sheets developed for the Libby project, as presented in Attachment 1. Note that there are two different electronic forms; one is for use in visual area estimation, and the other is for use in point counting. Once completed and checked, these spreadsheets are submitted to EPA for upload into the database. The laboratory should retain all original records for use in resolving any questions until otherwise instructed by EPA.

8.2 Instrument Maintenance Logbook

An individual instrument maintenance logbook should be kept for each piece of equipment in use at the laboratory. All maintenance activities must be recorded in the appropriate logbook.

8.3 Data Storage and Archival

Electronic Data. Each day of data acquisition, all electronic files will be saved onto two separate media. For example, the data may be saved onto a computer hard drive, but must also be backed up onto a type of portable media such as CD-ROM, floppy disc, or tape. Portable media will be maintained in a single location with limited access.

Hardcopy Data. All data sheets and micrographs must be stored in a secured location with limited access (e.g., locking file cabinet) when not in use.

Copies (hardcopy and electronic) of the raw analytical data will be submitted to USEPA for archival.

LIBBY SUPERFUND SITE STANDARD OPERATING PROCEDURE
APPROVED FOR USE IN LIBBY PE STUDY ONLY

ANALYSIS OF SOIL-LIKE MEDIA FOR ASBESTOS BY POLARIZED LIGHT MICROSCOPY

9.0 REFERENCES

CARB 435. California Environmental Protection Agency Air Resources Board, Method 435, Determination of Asbestos Content in Serpentine Aggregate. June 6, 1991.

EPA. 1993. Method for the Determination of Asbestos in Bulk Building Materials. United States Environmental Protection Agency, Office of Research and Development. EPA/600/R-93/116. July 1993.

EPA. 2003. Technical Memo 8. Procedure for Combining Mass Fraction Estimates for Coarse and Fine Fractions of Soil. Prepared by US EPA Region 8 with technical assistance from Syracuse Research Corporation.

NIOSH. 1994. Asbestos (Bulk) by PLM. NIOSH Manual of Analytical Methods, Fourth Edition. National Institute of Occupational Safety and Health. August 15, 1994.

Wylie AG and Verkouteren JR. 2000. Amphibole Asbestos from Libby, Montana: Aspects of Nomenclature. American Mineralogist 85:1540-1542.

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ANALYSIS OF SOIL-LIKE MEDIA FOR ASBESTOS BY POLARIZED LIGHT MICROSCOPY

ATTACHMENT 1

PLM DATA RECORDING SHEETS

PLM (VE and PC) Data Sheet and ED.xls

(Check with Volpe or SRC to determine the latest version number)

APPENDIX F
SOIL AND AIR SAMPLING FIELD FORMS

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): KEITH CRON / MAX UNDERWOOD Sampling Date: 7-11-06

Area/Facility/Location: _____ Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071106-KC- LMF-E-1	0930	LMF 0930	E		2290 2291	13	NO	Ø	← 1/2" CRUSHED GRAVEL STOCKPILE	
071106-KC- LMF-E-2	0936	LMF 0936	E		2292 2293	30 to 42 12	NO	Ø	1/2" CRUSHED GRAVEL	POINTS 13 to 30 ACCIDENTALLY COLLECTED WHILE WALKING
071106-KC LMF-E-3	0942	LMF	E		2294 2295	43-63 10	NO	Ø	TRACTION SAND & SALT	
071106-KC LMF-E-4	0948	LMF	E		2296 2297	54 to 64 10	NO	Ø	"	
071106-KC LMF-W-5	1502	LMF	W		2298 2299	10	NO	Ø	ROADMIX	DRIVE WAY BETWEEN SHOP & STORAGE SHED
071106-KC LMF-W-6	1509	LMF	W		2300 2301	54 40	NO	Ø	ROADMIX	"

* LMF = LIBBY MAINT. FACILITY

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): KEITH CRON / MAX UNDERWOOD Sampling Date: 7-11-06

Area/Facility/Location: _____ Sheet: 2 OF 06

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071106-KC LMF-W-7	1523	LMF	W		2302 2303	10	NO	Ø	ROADMIX	EQUIP. YARD
071106-KC LMF-W-8	1537	LMF	W		2304 2305	10	NO	Ø	ROADMIX	EQUIP YARD
071106-KC LMF-W-9	1545	LMF	W		2306 2307	10	NO	Ø	ROADMIX	EQUIP YARD
071106-KC LMF-W-10	1551	LMF	W		2308 2309	10	NO	Ø	ROADMIX	EQUIP YARD
071106-KC LMF-W-11	1557	LMF	W		2310 2311	14	NO	Ø	SOIL	EQUIP YARD
071106-KC LMF-W-12	1614	LMF	W		2314 2315	10	NO	Ø	ROADMIX	EQUIP YARD

LMF = LIBBY MAINT. FACILITY

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): _____ Sampling Date: _____

Area/Facility/Location: _____ Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071106-KC LMF-W-13	1610	LMF	W		2312 2313	10	NO	Ø	ROADMIX	EQUIP YARD
071106-KC LMF-E-14	1617	LMF	E		2316 2317		NO	Ø	ROADMIX	STOCK PILE YARD
071106-KC LMF-E-15	1613	LMF	E		2318 2319		NO	Ø	ROADMIX	STOCK PILE YARD 0-3" ? SAMPLE 3" ASPHALT
071106-KC LMF-E-16	1620	LMF	E		2320 2321		NO	Ø	ROADMIX	

LMF = LIBBY MAINT. FACILITY

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): KEITH CRON/MAX UNDERWOOD Sampling Date: 7-11-06

Area/Facility/Location: HIGHWAY 482 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071106-KC- 482- 17 W-.75-17	7-11-06 1710	482 1710	W	.75	2322 2323	10	NO	75	Topsoil/ GRAVEL	
071106-KC 482- E -.75 -18	7-11-06 1715	482	E	.75	2324 2325	10	NO	75	↓ SOIL/ GRAVEL	
071106-KC 482-W- 18 -19 .5	7-11-06 1720	482	W	.5	2326 2327	10	NO	25	↓	
071106-KC 482-E-.5 -20	7-11-06 1725	482	E	.5	2328 2329	10	NO	25	↓	
071106-KC 482-E-.5 -21	7-11-06 1725	482 Dup of 20 ABOVE	E	.5	— —	10 10	NO	25	↓	
071106-RB 482-W-.25 -22	7-11-06 1735	482	W	.25	2332 2333	10	NO	φ	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON / UNDERWOOD Sampling Date: 7-11-06

Area/Facility/Location: Highway 482 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071106-KC 482-E-.25 -23	7-11-06 1740	482 LIBBY	E	.25	2330 2331	10	NO	Ø	SOIL GRAVEL	
071106-KC 482-W-1.0 -24	7-11-06 1755	482 LIBBY	W	1.0	2334 2335	10	NO	75	TOP SOIL/ GRAVEL	
071106-RB 482-E-1.0 -25	7-11-06 1804	482 LIBBY	E	1.0	2336 2337	1A	NO	25	TOPSOIL/ GRAVEL	
✓ 071206-RB 482-W-1.25 -26	7-12-06 0945	482 LIBBY	W	1.25	2338 2339	11	NO	25	TOPSOIL/ GRAVEL	
✓ 071206-KC 482-E-1.25 -27	7-12-06 0950	482 LIBBY	E	1.25	2340 2341	12	NO	25	TOPSOIL/ GRAVEL	
✓ 071206-KC 482-W-1.5 -28	7-12-06 1003	482 LIBBY	W	1.5	2342 2343	10	NO	25	TOPSOIL/ GRAVEL	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/UNDERWOOD Sampling Date: 07-12-06

Area/Facility/Location: _____ Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
✓ 071206-KC 482-E-1.5 -29	7-12-06 1009	482	E	1.5	2344 2345	10	NO	25	TOP SOIL GRAVEL	
✓ 071206-KC 482-W-1.75 -30	7-12-06 1025	482	W	1.75	2346 2347	10	NO	50	"	
✓ 071206-KC 482-E-1.75 31	7-12-06 1030	482	E	1.75	2348 2349	11	NO	50	"	
✓ 071206-KC 482-W-2.0 32	7-12-06 1130	482	W	2.0	2350 2351	11	NO	75	"	
✓ 071206-KC 482-E-2.0 -33	7-12-06 1140	482	E	2.0	2352 2353	13	NO	75	"	
✓ 071206-KC 482-W-2.25 -34	7-12-06 1146	482	W	2.25	2354 2355	11	NO	05	"	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON / UNDERWOOD Sampling Date: 7-12-06

Area/Facility/Location: HIGHWAY 482 MILES 0 to 2.5 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
✓ 071206-KC 482-E-2.25 -35	7-12-06 1150	482	E	2.25	2356 2357	11	NO	50	TOPSOIL/ GRAVEL	
✓ 071206-KC 482-W-2.5 -36	7-12-06 1202	482	W	2.5	2358 2359	11	NO	30	TOPSOIL/ GRAVEL	
✓ 071206-KC 482-E-2.5 -37	7-12-06 1207	482	E	2.5	2360 2361 2362	2360 10 2361	NO	25	TOPSOIL/ GRAVEL	
✓ 071206-KC 482-E-2.5 -38	7-12-06 1207	482	E	2.5	— —	DUPLICATE OF #37		—	—	
✓ 071206-KC 260-N-0.25 -39	7-12-06 1400	S260	N	0.25	2363 2364	11	NO	20	TOPSOIL GRAVEL	100' W. OF BUBBA RD
✓ 071206-KC 260-S-0.25 -40	7-12-06 1405	S260	S	0.25	2365 2366	13	NO	75	↓	↓

ASBESTOS SOIL-SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): KEITH CRON/MAX UNDERWOOD Sampling Date: 7-12-06

Area/Facility/Location: Highway S260 miles 0.0 to 4.0 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
✓ 071206-KC 260-N-0.5 -41	7-12-06 1430	S260	N	0.5	2367 2368	14	NO	30	SANDY 30 w/ GRAVEL	
✓ 071206-KC 260-S-0.5 -42	7-12-06 1435	S260	S	0.5	2369 2370	60+	NO	30	30 ✓ w/ GRAVEL	GUARD RAIL
✓ 071206-KC 260-N-0.75 -43	7-12-06 1440	S260	N	0.75	2371 2372	11	NO	50	SOIL/ 3/4" MINUS	
✓ 071206-KC 260-S-0.75 -44	7-12-06 1450	S260	S	0.75	2373 2374	10	NO	0	3/4" MINUS w/ SOIL	
✓ 071206-KC 260-N-1.0 -45	7-12-06 1505	S260	N	1.0	2375 2376	10	NO	25	SOIL/ GRAVEL	
✓ 071206-KC 260-S-1.0 -46	7-12-06 1510	S260	S	1.0	2378 2379	10	NO	25	SOIL/ GRAVEL	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON / UNDERWOOD Sampling Date: 7-12-06

Area/Facility/Location: Highway S 260 mi Ø to 4.0 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
✓ 071206-KC 260-N-1.25 -47	7-12-06 1540	S 260	N	1.25	2380 2381	10	NO	20	SOIL / GRAVEL	
✓ 071206-KC 260-S-1.25 -48	7-12-06 1545	S 260	S	1.25	2382 2383	13	NO	30	TOP SOIL w/ GRAVEL	
✓ 071206-KC 260-N-1.5 -49	7-12-06 7-12-06 1635	S 260	N	1.5	2384 2385	13	NO	20	SOIL w/ GRAVEL	
= 071206-KC 260-S-1.5 -50	7-12-06 1640	S 260	S	1.5	2386 2387	11	NO	20	↓	
071206-KC 260-N-1.75 -51	7-12-06 1655	S 260	N	1.75	2388 2389	10	NO	10	↓	
071206-KC 260-S-1.75 -52	7-12-06 1700	S 260	S	1.75	2390 2391	13	NO	10	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON / UNDERWOOD Sampling Date: 7/12/06 & 7/13/06

Area/Facility/Location: HWY & S 260 Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071206-KC 260-N-2.0 -53	7-12-06 1720	S 260	N	2.0	2392 2393	10	NO	25	SOIL w/ GRAVEL ↓	
071206-KC 260-S-2.0 -54	7-12-06 1725	S 260	S	2.0	2394 2395	10	NO	10	↓	
071306-KC 260-E-2.25 -55	7-13-06 0835	S 260	E	2.25	2396 2397	11	NO	75	↓	
071306-KC 260-W-2.25 -56	7-13-06 0840	S 260	W	2.25	2398 2399	11	NO	75	↓	
071306-KC 260-E-2.5 -57	7-13-06 0855	S 260	E	2.5	2400 2401	11	NO	50	SOIL w/GRAVEL ↓	
071306-KC 260-W-2.5 -58	7-13-06 0900	S 260	W	2.5	2402 2403	11	NO	50	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON / UNDERWOOD Sampling Date: 7-13-06

Area/Facility/Location: Hwy S 260 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071306-KC 260-E-2.75 -59	7-13-06 0920	S 260	E	2.75	2404 2405	11	NO	50	SOIL w/ GRAVEL	
071306-KC 260-W-2.75 -60	7-13-06 0925	S 260	W	2.75	2406 2407	10	NO	75	SOIL w/ GRAVEL	
071306-KC 260-W-2.75 -61	7-13-06 0925	S 260	W	2.75	Duplicate of 60		NO	50	↓	
071306-KC 260- N - 2.75 -62	7-13-06 0945	S 260	E	3.0	2408 2409	11	NO	50	↓	
071306-KC 260- S -3.0 -63	7-13-06 0950	S 260	W	3.0	2410 2411	10	NO	50	↓	
071306-KC 260-N-3.25 -64	7-13-06 1035	S 260	N	3.25	2412 2413	10	NO	75	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON / UNDERWOOD Sampling Date: 7-13-06

Area/Facility/Location: HWAY S 260 Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071306-KC 260-S-3.25 -65	7-13-06 1040	S 260	S	3.25	2414 2415	10	NO	50	SOIL w/ GRAVEL	
071306-KC 260-N-3.5 -66	7-13-06 1050	S 260	N	3.5	2416 2417	11	NO	50	↓	BOBTAIL Rd
071306-KC 260-S-3.5 -67	7-13-06 1055	S 260	S	3.5	2418 2419	10	NO	25	↓	↓ APPEARS THAT MDT MAINT. END HERE
071306-KC 260-N-3.75 -68	7-13-06 1110	S 260	N	3.75	2420 2421	11	POSSIBLE NO	75	SOIL	NO CENTER OR SIDE PAINT LN BEYOND BOBTAIL ROAD
071306-KC 260-S-3.75 -69	7-13-06 1115	S 260	S	3.75	2422 2423	10	NO	75	SOIL	
071306-KC 260-N-4.0 -70	7-13-06 1125	S 260	N	4.0	2424 2425	15	NO	25	SOIL	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON / UNDERWOOD Sampling Date: 7-13-06

Area/Facility/Location: HWAY S 260 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071306-KC 260-S-4.0 -71	7-13-06 1125 1130	S260	S	4.0	2426 2427	10	NO	50	SOIL	
071306-KC 567-E-0.25 -72	7-13-06 1305	567	E	0.25	2432 2433	10	NO	50	GRAVEL w/soil	PHOTOS 2428 THRU 2431 ARE VOID
071306-KC 567-W-0.25 -73	7-13-06 1310	567	W	0.25	2434 2435	20? 32	NO	50	↓	TOOK GPS LOCATION TWICE
071306-KC 567- E -0.5 74	7-13-06 1325	567	E	0.5	2436 2437	10	NO	10	SOIL & GRAVEL	
071306-KC 567-W-0.5 75	7-13-06 1330	567	W	0.5	2438 2439	10	NO	10	↓	
071306-KC 567-E-0.75 -76	7-13-06 1400	567	E	0.75	2440 2441	10	NO	25	↓	JUST BEYOND CURVE SIGN

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/UNDERWOOD Sampling Date: 7-13-06

Area/Facility/Location: HWAY 567 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071306-KC 567-W-0.75 -77	7-13-06 1405	567	W	0.75	2442 2443	10	NO	25	SOIL & GRAVEL	
071306-KC 567-E-1.0 -78	7-13-06 1420	567	E	1.0	2444 2445	10	NO	10	↓	
071306-KC 567-W-1.0 -79	7-13-06 1425	567	W	1.0	2446 2447	10	NO	Ø	↓	SAMPLE IN ROAD WAY TO WEST
071306-KC 567-W-1.0 -80	7-13-06 DUPLICATE OF 79	567	W	1.0	—	—	NO	—	↓	
071306-KC 567-E-1.25 -81	7-13-06 1450	567	E	1.25	2448 2449	10	NO	5	↓	
071306-KC 567-W-1.25 -82	7-13-06 1455	567	W	1.25	2450 2451	10	NO	5	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON / UNDERWOOD Sampling Date: 7-13-06

Area/Facility/Location: HIWAY 567 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071306-KC 567-E-1.5 83	7-13-06 1520	567	E	1.5	2452 2453	10	No	25	SOIL & GRAVEL	
071306-KC 567-W-1.5 84	7-13-06 1525	567	W	1.5	2454 2455	10	No	25	SOIL W/ GRAVEL	
071306-KC 567-E-1.75 85	7-13-06 1535	567	E	1.75	2456 2457	10	No	25	SOIL W/ GRAVEL	
071306-KC 567-W-1.75 86	7-13-06 1540	567	W	1.75	2458 2459	11	No	25	↓	
071306-KC 567-E-2.0 87	7-13-06	567	E	2.0	2460 2461	15	No	25	↓	
071306-KC 567-W-2.0 88	7-13-06	567	W	2.0	2462 2463	11	No	50	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/UNDERWOOD Sampling Date: 7-13-06

Area/Facility/Location: HIWAY 567 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME DDMMYY (@ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071306-KC 567-E-2.25 89	7-13-06 1655	567	E	2.25	2464 2465	11	No	25	SAND & GRAVEL	
071306-KC 567-W-2.25 90	7-13-06 1700	567	W	2.25	2466 2467	11	No	25	SAND & GRAVEL	
071306-KC 567-E-2.5 91	7-13-06 1715	567	E	2.5	2468 2469	13	No	25	↓	
071306-KC 567-W-2.5 92	7-13-06 1720	567	W	2.5	2470 2471	10	No	25	↓	
071306-KC 567-E-2.75 -93	7-13-06 0735	567	E	2.75	2488 2489	10	NO	50	↓	
071306-KC 567-W-2.75 -94	7-13-06 0740	567	W	2.75	2490 2491	11	NO	50	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/UNDERWOOD Sampling Date: 7-13-06 & 7-14-06

Area/Facility/Location: _____ Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071306-KC 567-E-3.0 -95	7-13-06 1750	567	E	3.0	2492 2493		NO	30	SAND & GRAVEL ↓	
071306-KC 567-W-3.0 -96	7-13-06 1755	567	W	3.0	2494 2495		NO	25	↓	
071406-KC PIT5-E.WALL -97	7-14-06	PIT 5			2472 2473	2472 2473	NO	Ø		
071406-KC PIT5-E.WALL -98	7-14-06	PIT 5			2474 2475	2474 2475	NO	Ø		
071406-KC PIT5-FLOOR 99	7-14-06	PIT 5			2476 2477	2476 2477	NO	Ø		
071406-KC PIT5-FLOOR 100	7-14-06	PIT 5			2478 2479	2478 2479	YES	Ø		

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON / UNDERWOOD Sampling Date: 7-14-06 & 7-17-06

Area/Facility/Location: _____ Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071406-KC PIT5-N.WALL 101	7-14-06	PIT5			2480 2481		YES	Ø		
071406-KC PIT5-N.WALL - 102	7-14-06	PIT5			2482 2483			Ø		
071406-KC PIT5-SPNW - 103	7-14-06	PIT5			2484 2485			Ø		
071406-KC PIT5-SPSW - 104	7-14-06	PIT5			2486 2487			Ø		
071706-KC 567-E-3.25 105	7-17-06 0840	567	E	3.25	2496 2497	11	NO	60	SOIL & GRAVEL	OLD Stump ↓
071706-KC 567-W-3.25 106	7-17-06 0845	567	W	3.25	2498 2499	11	NO	30 20	↓	↓

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/UNDERWOOD Sampling Date: 7-17-06

Area/Facility/Location: Hiway 567 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071706-KC 567-E-3.5 107	7-17-06 0900	567	E	3.5	2500 2501	10	NO	50	SOIL & GRAVEL ↓	
071706-KC 567-W-3.5 108	7-17-06 0905	567	W	3.5	2502 2503	10	NO	50	↓	
071706-KC 567-E-3.75 109	7-17-06 0915	567	E	3.75	2504 2505	11	NO	50	↓	
071706-KC 567-W-3.75 110	7-17-06 0920	567	W	3.75	2506 2507	10	NO	50	↓	
071706-KC 567-E-4.0 111	7-17-06 0930	567	E	4.0	2508 2509	10	NO	50	↓	
071706-KC 567-W-4.0 112	7-17-06 0935	567	W	4.0	2510 2511	20	NO	50	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/UNDERWOOD Sampling Date: 7-17-06

Area/Facility/Location: Hiway 567 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071706-KC 567-E-4.25 113	07-17-06 0945	567	E	4.25	2512 2513	10	No	25	SOIL & GRAVEL ↓	
071706-KC 567-W-4.25 114	07-17-06 0950	567	W	4.25	2514 2515	10	No	25	↓	
071706-KC 567-E-4.5 115	07-17-06 1005	567	E	4.5	2516 2517	10	No	10	↓	
071706-KC 567-W-4.5 116	07-17-06 1010	567	W	4.5	2518 2519	10	No	30	↓	
071706-KC 2-E-38.0 117	07-17-06 1120 1121	2	E	38.0	2520 2521	28	No	25	SANDY SOIL w/ GRAVEL ↓	
071706-KC 2-W-38.0 118	07-17-06 1125 1126	2	W	38.0	2522 2523	10	No	25	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): _____ Sampling Date: _____

Area/Facility/Location: Hiway Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071706-KC 2-E-37.75 119	7-17-06 1140	2	E	37.75	2524 2525	13	NO	30	SANDY SOIL w/ GRAVEL	
071706-KC 2-W-37.75 120	7-17-06 1145	2	W	37.75	2526 2527	10	NO	30	↓	
071706-KC 2-W-37.75 121	7-17-06 1145	DUPLICATE OF			120	—	—	—	↓	
071706-KC 2-E-37.5 122	7-17-06 1210	2	E	37.5	2528 2529	10	NO	75	SAND	
071706-KC 2-W-37.5 123	7-17-06 1215	2	W	37.5	2530 2531	13	NO	50	SAND	
071706-KC 2-E-37.25 124	7-17-06 1225	2	E	37.25	2532 2533	10	NO	80	SAND	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/UNDERWOOD Sampling Date: 7-17-06

Area/Facility/Location: HWAY 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071706-KC 2-W-37.25 125	7-17-06 1230	2	W	37.25	2534 2535	10	NO	50	SANDY SOIL	
071706-KC 2-E-37.0 126	7-17-06 1245	2	E	37.0	2536 2537	10	NO	50	SANDY SOIL	
071706-KC 2-W-37.0 127	7-17-06 1250	2	W	37.0	2538 2539	10	NO	50	↓	
071706-KC 2-E-36.75 128	7-17-06 1425	2	E	36.75	2540 2541	10	NO	50	↓	
071706-KC 2-W-36.75 129	7-17-06 1430	2	W	36.75	2542 2543	11	NO	Ø	↓	SAMPLED ON WEST SIDE OF GUARDRAIL
071706-KC 2-E-36.5 -130	7-17-06 1440	2	E	36.5	2544 2545	10	NO	50	↓	GUTTER, CURB & SIDEWALK ↓

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/UNDERWOOD Sampling Date: 7-17-06

Area/Facility/Location: _____ Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071706-KC 2-W-36.5 131	7-17-06 1445	2	W	36.5	2546 2547	10	NO	50	SANDY SOIL	GUTTER-CURB & SIDEWALK
071706-KC 2-E-36.25 132	7-17-06 1525	2	E	36.25	2548 2549	11	NO	25	SANDY SOIL TOPSOIL	
071706-KC 2-W-36.25 133	7-17-06 1530	2	W	36.25	2550 2551	14	NO	25	SANDY SOIL w/GRAVEL	
071706-KC 2-E-36.0 134	7-17-06 1545	2	E	36.0	2552 2553	11	NO	50	SANDY SOIL	
071706-KC 2-W-36.0 135	7-17-06 1550	2	W	36.0	2554 2555	10	YES	90	TOP SOIL & SAND	
071706-KC 2-E-35.75 136	7-17-06 1620	2	E	35.75	2556 2557	10	NO	10	SANDY SOIL	GUTTER & CURB NO SIDEWALK

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/UNDERWOOD Sampling Date: 7-17-06

Area/Facility/Location: Hiway 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071706-KC 2-W-35.75 -137	7-17-06 1625	2	W	35.75	2558 2559	16	NO	75	TOP SOIL & SANDY SOIL	OUTER CURB - NO SIDEWALK
071706-KC 2-E-35.5 -138	7-17-06 1640	2	E	35.5	2560 2561	10	NO	50	SANDY SOIL w/ GRAVEL	↓
071706-KC 2-W-35.5 -139	7-17-06 1645	2	W	35.5	2562 2563	10	NO	25	↓	↓
071706-KC 2-W-35.5 -140	7-17-06 DUPLICATE OF	2	W	35.5	—	—	—	—		↓
071706-KC 2-E-35.25 -141	7-17-06 1700	2	E	35.25	2564 2565 2568 2569	10	NO	10	SANDY SOIL w/ SOME GRAVEL	BUND UP OF GRAVEL & SAND UNDER GUARD RAIL
071706-KC 2-W-35.25 -142	7-17-06 1705	2	W	35.25	2566 2567 2570 2571	10	NO	25	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/UNDERWOOD Sampling Date: 7-17-06 & 7-18-06

Area/Facility/Location: Hiway 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071706-KC 2-E-35.0 -143	7-17-06 1725	2	E	35.0	2572 2573	10	NO	25	TOP SOIL SANDY SOIL	NEXT TO CURB NO SIDEWALK
071706-KC 2-W-35.0 -144	7-17-06 1730	2	W	35.0	2574 2575	10	NO	50	SANDY SOIL & GRAVEL	CURB & GUTTER NO SIDEWALK
071806-CV 2-E-34.75 -145	7-18-06 0900	2	E	34.75	2576 2577	15	NO	50	SANDY SOIL	↓
071806-CV 2-W-34.75 -146	7-18-06 0905	2	W	34.75	2578 2579	28	NO	50	SANDY SOIL W/ GRAVEL	↓
071806-CV 2-E-34.5 147	7-18-06 0920	2	E	34.5	2580 2581	28	NO	50	↓ LITTLE GRAVE	↓
071806-CV 2-W-34.5 148	7-18-06 0925	2	W	34.5	2582 2583	14	NO	50	↓ LITTLE GRAVEL	↓

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/UNDERWOOD Sampling Date: 7-18-06

Area/Facility/Location: Highway 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071806-CV 2-E-34.25 -149	07-18-06 0935	2	E	34.25	2584 2585	10	No	50	SANDY SOIL	CURB w/ No sidewalk
071806-CV 2-W-34.25 -150	07-18-06 0940	2	W	34.25	2586 2587	10	No	50	↓	↓
071806-CV 2-E-34.0 -151	07-18-06 0950	2	E	34.0	2588 2589	10	No	50	↓	↓
071806-CV 2-W-34.0 -152	07-18-06 0955	2	W	34.0	2590 2591	10	No	50	↓	↓
071806-CV 2-E-33.75 153	07-18-06 1010	2	E	33.75	2592 2593	16	No	50	↓	↓
071806-CV 2-W-33.75 154	07-18-06 1015	2	W	33.75	2594 2595	12	No	50	↓	w/ SIDEWALK

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/UNDERWOOD Sampling Date: 7-18-06

Area/Facility/Location: Highway 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071806-CV 2-E-33.5 -155	7-18-06 1025	2	E	33.5	2596 2597 2598	12	NO	50	SANDY SOIL w/GRAVEL	NO WEST SAMPLE WEST SIDE IS CONCRETE LOT
071806-CV 2-E-33.25 -156	7-18-06 1050	2	E	33.25	2599 2600	12	NO	50	↓	CURB w/NO WALK
071806-CV 2-W-33.25 -157	7-18-06 1055	2	W	33.25	2601 2602	12	NO	50	↓	CURB w/WALK
071806-CV 2-E-33.0 158	7-18-06 1105	2	E	33.0	2603 2604	10	NO	0 WOOD MULCH	↓	ASPHALT LOT ON WEST SIDE
071806-CV 2-E-32.75 -159	7-18-06 1130	2	E	32.75	2605 2606	10	NO	50	↓	CURB/NO WALK NO CURB SAMPLES 15-15-06
071806-CV 2-E-32.75 -160	7-18-06 DUPLICATE OF-159	2	W E	32.75	-	-	-	+	-	-

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/UNDERWOOD Sampling Date: 7-18-06

Area/Facility/Location: Highway 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071806-CV 2-W-32.75 -161	7-18-06 1130 1135	2	W	32.75	2607 2608	10	NO	75	SANDY SOIL	CURB w/ WALK ↓
071806-CV 2-E-32.5 -162	7-18-06 1150	2	E	32.5	2609 2610	11	NO	0	SOIL & GRAVEL	↓
071806-CV 2-W-32.5 -163	7-18-06 1155	2	W	32.5	2611 2612	10	NO	100	TOP SOIL w/ GRAVEL	↓
071806-CV 2-E-32.25 -164	7-18-06 1300	2	E	32.25	2613 2616	11	NO	90	↓	↓
071806-CV 2-W-32.25 -165	7-18-06 1305	2	W	32.25	2614 2615	10	NO	80	↓	↓
071806-CV 2-E-32.0 166	7-18-06 1310	2	E	32.0	2617 2618	10	NO	70	↓	CURB w/ NO WALK

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/UNDERWOOD Sampling Date: 7-18-06

Area/Facility/Location: Highway 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071806-CV 2-W-32.0 -167	7-18-06 1305	2	W	32.0	2619 2620	11	NO	WOOD MULCH	SANDY SOIL	CURB w/WALK
071806-CV 2-E-31.75 -168	7-18-06 1345	2	E	31.75	2621 2622	11	NO	75	↓	CURB w/NO WALK
071806-CV 2-W-31.75 -169	7-18-06 1350	2	W	31.75	2623 2624	10	NO	95	↓	CURB w/WALK NO SUB SAMPLE FROM SOUTH END
071806-CV 2-E-31.5 -170	7-18-06 1405	2	E	31.5	2625 2626	14	NO	50	↓	CURB w/NO WALK
071806-CV 2-W-31.5 -171	7-18-06 1410	2	W	31.5	2627 2628	11	NO	50	↓	CURB w/WALK
071806-CV 2-E-31.25 -172	7-18-06 1420	2	E	31.25	2629 2630	10	NO	50	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/UNDERWOOD Sampling Date: 7-18-06

Area/Facility/Location: HIGHWAY 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YY @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071806-CV 2-W-31.25 -173	7-18-06 1425	2	W	31.25	2631 2632	10	NO	20	Topsoil	
071806-CV 2-E-31.0 -174	7-18-06 1440	2	E	31.0	2633 2634	10	NO	25	SANDY SOIL	
071806-CV 2-W-31.0 -175	7-18-06 1445	2	W	31.0	2635 2636	10	NO	10	↓	
071806-CV 2-E-30.75 -176	7-18-06 1505	2	E	30.75	2637 2638	11	NO	25	↓	
071806-CV 2-W-30.75 -177	7-18-06 1510	2	W	30.75	2639 2640	10	NO	80	↓	
071806-CV 2-E-30.5 -178	7-18-06 1530	2	E	30.5	2641 2642	10	NO	10	↓ w/GRAVEL	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/UNDERWOOD Sampling Date: 7-18-06

Area/Facility/Location: Hiway 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071806-CV 2-W-30.5 -179	7-18-06 1535	2	W	30.5	2643 2644	10	NO	10	SANDY SOIL w/GRAVEL	
071806-CV 2-W-30.5 -180	DUPLICATE OF 179									
071806-CV 2-E-30.25 -181	7-18-06 1610	2	E	30.25	2645 2646	10	NO	25	SANDY SOIL	
071806-CV 2-W-30.25 -182	7-18-06 1615	2	W	30.25	2647 2648	11	NO	25	↓	
071806-CV 2-E-30.0 -183	7-18-06 1635	2	E	30.0	2649 2650	11	NO	50	↓	
071806-CV 2-W-30.0 -184	7-18-06 1640	2	W	30.0	2651 2652	10	NO	Ø		GRAVEL LANDSCAPE OVER SOIL

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/UNDERWOOD Sampling Date: 7-18-06

Area/Facility/Location: Hiway 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071806-CV 2-E-29.75 -185	7-18-06 1700	2	E	29.75	2653 2654 2657 2658	10	NO	50	SANDY SOIL	2 LANE NO CURB OR WALK
071806-CV 2-W-29.75 -186	7-18-06 1705	2	W	29.75	2655 2656 2659 2660	10	NO	10	SANDY SOIL & GRAVEL	↓
071806-CV 2-E-29.5 -187	7-18-06 1720	2	E	29.5	2661 2662	10	NO	0	GRAVEL w/SON	(BEHIND CONCRETE BARRIER)
071806-CV 2-W-29.5 -188	7-18-06 1725	2	W	29.5	2663 2664	16	NO	25	↓	↓
071806-CV 2-E-29.25 -189	7-18-06 1735	2	E	29.25	2665 2666	11	NO	5	↓	(BEHIND BARRIER)
071806-CV 2-W-29.25 -190	7-18-06 1740	2	W	29.25	2667 2668	10	NO	30	↓	↓

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/UNDERWOOD Sampling Date: 7-18-06 & 7-19-06

Area/Facility/Location: Highway 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071806-CV 2-E-29.0 -191	7-18-06 1800	2	E	29.0	2669 2670	46	NO	Ø PULL OUT	SOIL w/ GRAVEL ↓	
071806-CV 2-W-29.0 -192	7-18-06 1805	2	W	29.0	2671? 2672? 2667 2688	10	NO	10	↓	
071906-CV 2-E-28.75 -193	7- 18 -06 19 0830	2	E	28.75	2671 2672	10	NO	10	SANDY SOIL & GRAVEL ↓	(BEHIND BARRIER) →
071906-CV 2-W-28.75 -194	7- 18 -06 19 0835	2	W	28.75	2673 2674	11	NO	25	↓	
071906-CV 2-E-28.5 -195	7-19-06 0850	2	E	28.5	2675 2676	10	NO YES	25	SOIL ↓	
071906-CV 2-W-28.5 -196	7-19-06 0855	2	W	28.5	2677 2678	12	NO	25	SOIL ↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/LINDERWOOD Sampling Date: 7-19-06

Area/Facility/Location: Hiway 2 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071906-CV 2-E-28.25 -197	7-19-06 0900	2	E	28.25	2679 2680	13	NO	75	SOIL w/ GRAVEL	
071906-CV 2-W-28.25 -198	7-19-06 0905	2	W	28.25	2681 2682	14	NO	50	SOIL w/ GRAVEL	
071906-CV 2-E-28.0 -199	7-19-06 0915	2	E	28.0	2683 2684	10	NO	75	↓	
071906-CV 2-W-28.0 -200	7-19-06 0920	2	W	28.0	2685 2686	10	NO	15	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/UNDERWOOD Sampling Date: 7-19-06

Area/Facility/Location: HIGHWAY 37 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071906-CV 37-E-5.5 -201	7-19-06 1020	37	E	5.5	2689 2690	10	YES	5	SANDY SOIL & GRAVEL	JUST SOUTH OF MINE ROAD
071906-CV 37-W-5.5 -202	7-19-06 1025	37	W	5.5	2691 2692	12	NO	10	↓	
071906-CV 37-W-5.5 -203	7-19-06 1025	37 DUPLICATE OF 202	W	5.5	—	—	—	—	—	
071906-CV 37-E-5.75 -204	7-19-06 1035	37	E	5.75	2693 2694 2695	10	NO	25	SANDY SOIL & GRAVEL	
071906-CV 37-W-5.75 -205	7-19-06 1040	37	W	5.75	2695 2696	14	NO	5	↓	
071906-CV 37-E-6.0 -206	7-19-06 1055	37	E	6.0	2697 2698 2699 2700	10	NO	25	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON / VOST / LINDERWOOD Sampling Date: 7-19-06

Area/Facility/Location: HIGHWAY 37 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071906-CV 37-W-6.0 -207	7-19-06 1100	37	W	6.0	2699 2700 2697 2698	12	NO	25	SANDY SOIL GRAVEL	
071906-CV 37-E-6.25 -208	7-19-06 1110	37	E	6.25	2701 2702 2703 2704	10	NO	25	↓	
071906-CV 37-W-6.25 -209	7-19-06 1115	37	W	6.25	2701 2702	10	NO	5	↓	
071906-CV 37-E-6.5 -210	7-19-06 1125	37	E	6.5	2703 2704 2705 2706	10	NO	25	↓	
071906-CV 37-W-6.5 -211	7-19-06 1130	37	W	6.5	2705 2706 2707 2708	11	NO	25	↓	
071906-CV 37-E-6.75 -212	7-19-06 1150	37	E	6.75	2707 2708 2709 2710	10	NO	25	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/UNDERWOOD Sampling Date: 7-19-06

Area/Facility/Location: HIGHWAY 37 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071906-CV 37-W-6.75 -213	7-19-06 1155	37	W	6.75	2709 2710 2711 2712	10	NO	5	SANDY SOIL & GRAVEL	
071906-CV 37-E-7.0 -214	7-19-06 1215	37	E	7.0	2713 2714	12	NO		↓	
071906-CV 37-W-7.0 -215	7-19-06 1220	37	W	7.0	2715 2716	11	NO		↓	
071906-CV 37-E-7.25 -216	7-19-06 1335	37	E	7.25	2717 2718	10	NO	25	↓	
071906-CV 37-W-7.25 217	7-19-06 1340	37	W	7.25	2719 2720	11	NO	25	↓	
071906-CV 37-E-7.5 -218	7-19-06 1355	37	E	7.5	2721 2722	10	NO	25	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): _____ Sampling Date: _____

Area/Facility/Location: _____ Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071906-CV 37-W-7.5 -219	7-19-06 1400	37	W	7.5	2723 2724	10	NO	25	SANDY SOIL & GRAVEL	
071906-CV 37-W-7.5 -220	↓ DUPLICATE OF 219	↓	↓	↓	↓	↓	↓	↓	↓	
071906-CV 37-E-7.75 -221	7-19-06 1415	37	E	7.75	2725 2726	10	NO	10	↓	
071906-CV 37-W-7.75 -222	7-19-06 1420	37	W	7.75	2727 2728	10	NO	0	↓	
071906-CV 37-E-8.0 223	7-19-06 1430	37	E	8.0	2729 2730	10	NO	30	↓	
071906-CV 37-W-8.0 224	7-19-06 1435	37	W	8.0	2731 2732	10	NO	0	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): CRON/VOGT/UNDERWOOD Sampling Date: 7-19-06

Area/Facility/Location: Hiway 37 Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071906-CV 37-E-8.25 -225	7-19-06 1525	37	E	8.25	2733 2734	10	NO	50	SANDY SOIL & GRAVEL	
071906-CV 37-W-8.25 -226	7-19-06 1530	37	W	8.25	2735 2736	10	YES NO	0	↓	
071906-CV 37-E-8.5 -227	7-19-06 1545	37	E	8.5	2737 2738	10	NO	90	↓	
071906-CV 37-W-8.5 -228	7-19-06 1550	37	W	8.5	2739 2740	10	NO	0	↓	
071906-CV 37-E-8.75 -229	7-19-06 1600	37	E	8.75	2741 2742	10	NO	0	↓	
071906-CV 37-W-8.75 -230	7-19-06 1605	37	W	8.75	2743 2744	10	NO	5	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): _____ Sampling Date: _____

Area/Facility/Location: _____ Sheet: _____ OF _____

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
071906-CV 37-E-9.0 231	7-19-06 1620	37	E	9.0	2745 2746	10	No	10	SANDY SOIL & GRAVEL	
071906-CV 37-W-9.0 232	7-19-06 1625	37	W	9.0	2747 2748	10	NO	Ø	↓	
071906-CV 37-E-9.25 233	7-19-06 1635	37	E	9.25	2749 2750	10	NO	25	↓	
071906-CV 37-W-9.25 234	7-19-06 1640	37	W	9.25	2751 2752	10	NO	Ø	↓	
071906-CV 37-E-9.5 -235	7-19-06 1650	37	E	9.5	2753 2754	10	NO	5	↓	
071906-CV 37-W-9.5 -236	7-19-06 1655	37	W	9.5	2755 2756	10	NO	Ø	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): Cron / Vogt Sampling Date: 07/20/06

Area/Facility/Location: CDM duplicate locations 1.0 - 5.0 Hwy 37 Sheet: 1 OF 2

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
072006-CU-37- -S-1.0-237	20/07/06 0852	37/ 1.0 MP (200' + E)	S	1.0	2765 4400 1005 2766	10	NO	50	gravel w/ sand	
072006-CU-37- -N-1.0-238	20/07/06 0900	37/ 1.0 MP 200' E	N	1.0	2767 2768	10	NO	25 50	↓	CDM pt. on asphalt moved N 5 ft to be on side of road
072006-CU-37- -S-2.0-239	20/07/06 0935	37/ 2.0 MP 200' E	S	2.0	2771 2772	10	↓	35 25	↓	
072006-CU-37- -N-2.0-240	20/07/06 0940	37/2.0 MP 200' E	N	2.0	2769 2770	11 10	↓	35	↓	CDM pt. on asphalt moved N 5 ft on road
072006-CU-37- -N-2.0-241	20/07/06 0940	37/2.0 MP 200' E	N	2.0		None	↓	35	↓	duplicate
072006-CU-37- -N-3.0-242	20/07/06 1015	37/3.0 MP 200' W	N	3.0	2773 2774	10	↓	35	↓	

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): Cron/Vegt Sampling Date: 07/20/06

Area/Facility/Location: CDM duplicate Locations 1.0 - 5.0 Sheet: 2 OF 2

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
072006-CU-37 - S - 3.0 - 243	20/07/06 1020	37/3.0 MP 200' W	S	3.0	2775 2776	10	No	35	gravel w/sand	No CDM pt Maximum pt. 5 ft off road access
072006-CU-37 - N - 4.0 - 244	20/07/06 1035	37/4.0 MP 100' W	N	4.0	2777 2780	10		35		CDM pt in road moved 5' off HWY edge
072006-CU-37 - S - 4.0 - 245	20/07/06 1040	37/4.0 MP 100' W	S	4.0	2777 2778	10		15		CDM pt 20' from edge of Road Moved to 5' from edge
072006-CU-37 - N - 5.0 - 246	20/07/06 1055	37/5.0 MP 100' W	N	5.0	2781 2782	10		20		" "
072006-CU-37 - S - 5.0 - 247	20/07/06 1100	37/5.0 MP 100' W	S	5.0	2783 2784	10		20		" " 15 ft off HWY Moved to 5' post road

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): Cron / Vogt Sampling Date: 07/20/06

Area/Facility/Location: San pit # Sample pits Sheet: 1 OF 4

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
072006 - CU- pit 2 - East wall - 248	20/07/06 1340	Pit 2 East wall	E	—	2785 2786	10	No	none - 0 -	gravel	none e. wall not stockpiled
072006 - CU- pit 2 - N wall - 249	20/07/06 1345	Pit 2 N wall	N	—	2787 2788	10	No	none	"	"
072006 - CU- pit 2 - ESP - 250	20/07/06 1350	Pit 2 ESP	Middle	—	2789 2790	14	↓	↓	sand stockpile	Sandy stockpile loading
072006 - CU- pit 2 - WSP - 251	20/07/06 1355	Pit 2 WSP	Middle	—	2791 2792	10	↓	↓	gravel stockpile	per gravel stockpile loading
072006 - CU pit 1 - East wall - 252	20/07/06 1405	Pit 1 e. wall	East		2793 2794 2795 2796	10	↓	0	gravel w/sand	hill (side) sample
072006 - CU pit 1 - N wall - 253	20/07/06 1410	Pit 1 N. wall	North		2795 2796	10	↓	0	↓	side hill sample

↓ 2793
2794

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): Cron/Veg Sampling Date: 7/20/06

Area/Facility/Location: Sample Pits Sheet: 2 OF 4

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
072006 - CU - pit 1 - WSP - -254	20/07/06 1415	Pit 1 W. Stock pile	W	-	2797 2798	10	No	0	Per gravel w/sand	Stock pile
072006 - CU - pit 1 - SSP - -255	20/07/06 1420	Pit 1 South stock pile	S	-	2799 2800	10	✓	0	1 1/2" washed rock w/sand	↓
072006 - CU - pit 10 - NW wall -256	20/07/06 1440	Pit 10 N wall	N		2801 2802	10	Yes	↓	gravel mixed size sandy	side wall
072006 - CU - pit 10 - E wall -257	20/07/06 1445	Pit 10 E wall	E		2805 2806	10	✗ No	↓		Ramp stock
072006 - CU - pit 10 - W wall -258	20/07/06 1450	Pit 10 W wall	W		2803 2804	10	Yes	↓		↓
072006 - CU - pit 4 - NW wall - 259	20/07/06 1515	Pit 4 NW wall	NW		2807 2808	11	Yes	0	gravel/ sand	side wall (Raw material)

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): Cron / Vogt Sampling Date: 7/20/06

Area/Facility/Location: Sampling Pits Sheet: 3 OF 4

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
072006 - CU - Pit 4 - WSP - 260	20/07/06 1520	Pit 4 WSP	W	-		10	No	0	gravel 1 1/2 - 3 1/2 sand	dup. 4
072006 - CU - Pit 4 - WSP - 261	20/07/06 1520	Pit 4 WSP	W	-	2809 2810	10	No		" "	duplicate
072006 - CU - Pit 4 - Nsp - 262	20/07/06 1525	Pit 4 Nsp	N	-	2805 2806	10	Yes		Sandy no gravel/mix	
072006 - CU Pit 3 - NWall - 263	20/07/06 1545	Pit 3 NWall	N	-	2807 2808	10	N		gravel w/sand	
072006 - CU Pit 3 - SSp - 263	20/07/06 1550	Pit 3 SSp	S	-	2809 2810	11	N		Road base	
072006 - CU - Pit 6 - SWall - 264	20/07/06 1715	Pit 6 South W	S		2811 2812	10	N	0	mix of gravel sand/rock	typical setting throughout pit

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): Cron / Vogt Sampling Date: 7/20/06

Area/Facility/Location: San Traction Sand Pits Sheet: 4 OF 4

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
072006-CU- Pit 6 - NSP - 265	20/07/06 1720	Pit 6 NSP	N		2815 2816	10	No	0	gravel mixed w/sand	
072006-CU- Pit 6 - N wall - 266	20/07/06 1725	Pit 6 N wall	N		2813 2814		Yes		sand	below grade of pit
072006-CU- Pit 15 - NSP - 267	20/07/06 1735	Pit 15 NSP	N		2815 2816		No		Per gravel w/sand	
072006-CU- Pit 15 - S wall - 268	20/07/06 1740	Pit 15 S wall	S		2817 2818				gravel 1/4" - 5" w/sand	
072006-CU- Pit 15 - ESP - 269	20/07/06 1745	Pit 15 ESP	E		2819 2820				Per gravel w/o sand	many pits

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): Cron / Vogt Sampling Date: 07/21/06

Area/Facility/Location: Sampling Sweeping Piles / Pits Sheet: 1 OF 1
Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
072106 - CU - MDTSWP - NW - 270	21/07/06 1015 1030	US 2 Sweep MDT Facility	W	36	2827 2828	10	No	0	pea gravel w/ little sand	Last month sweepings Eastern Pile
072106 - CU - MDTSWP - NW - 271	21/07/06 1035	↓	W	36	2829 2830	10	↓	0	Sandy w/ little gravel	Last spring / Fall Western Pile Sweeping pile
072106 - CU - Pit 14 - Small - 272	21/07/06 1050	US 2 Parker Pit	S	40	2830 2831	10	Yes	0	Sandy, no gravel	Parker Pit small 8' x 4' of 10'
072106 - CU - Pit 14 - Small - 273	21/07/06 1055	↓	W	↓	2832 2833	11	↓	5	1/4" - 5" rock w/ sand	↓ ↓
072106 - CU - Pit 11 - Small - 274	21/07/06 1120	37 Sanderson burrow	N	4.5	2834 2835	10	N	30	gravel w/ sand	native gravel
072106 - CU - Pit 11 - MSP - - 275	21/07/06 1125	↓	N	↓	2836 2837	↓	Y	0	Fine Sand w/ little gravel	4 piles 3 ~ 4 yd

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): _____ Sampling Date: _____

Area/Facility/Location: _____ Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
072106-CV - pit 11 - NSP - 276	21/07/06 1130	37 Sanderson burrow	N	4.5	2838 2839	10	No	10	1/4 - 8" rock with sand	Suspect fill from amitheater much fill pit Grace
072106-CV - 37 - N - 5.7 - 277	21/07/06 1145	37 burrow	N	(5.7)	2840 2841	10	↓	50		.2 From mine entrance north
072106-CV - 37 - N - 5.75 - 278	21/07/06 1150	37 burrow	N	5.75	2842 2843	10	N	50		.25 From mine entrance north
072106-CV - pit 17 - SSP - 279	21/07/06 1230	37 Jennings	N/A	9.4	2844 2845	10	No	0	pea gravel w/sand	material from Ward crushing pit #6
072106-CV - pit 17 - NSP - 280	21/07/06 1235	↓	↓	↓	2846 2847	10	↓	0	↓	traction sand
072106-CV - pit 17 - NSP - 281	21/07/06 1235	↓	↓	↓			↓	0	↓	dup

traction sand mixed w/salt in quartzite

ASBESTOS SOIL SAMPLING FORM

Project Name: MDT Libby Soil Sampling Project Number: 1156561296.100

Inspector(s): MAX UNDERWOOD Sampling Date: 7-27 & 7-28-06

Area/Facility/Location: HWY 37 SWEEPING & DITCHING Sheet: OF

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and soil sampling procedures.

SAMPLE NO.	DATE/TIME (DD/MM/YR @ 0000)	HIGHWAY/ LOCATION	SIDE OF ROAD (N, S, E, W)	MILE POST (To nearest 0.25)	DIGITAL PHOTO NUMBER	NUMBER OF GPS LOCATIONS COLLECTED (Minimum = 10)	VERMICULITE PRESENT VISUALLY? (Yes/No)	VEG COVER (%)	SOIL TYPE (Topsoil/Sand/ Gravel, etc.)	COMMENTS
072706-MU 37-2.7/4.6 - 282	7-27-06	37								
072706-MU 37-4.6/5.5 283	7-27-06	37								
072806-MU 37-4.3/5.5 284	7-28-06	37								

REPORT OF: FIELD NOTESTIME 0800 ^{AM} _{PM} TO 1800 ^{AM} _{PM} HOURS MILEAGE _____ MILES TO _____ MILES TOTAL _____TO _____

_____JOB NO. 6561296 DATE 7-14-06

DAILY REPORT NO. _____ SHEET _____ OF _____

INVOICE NO. _____

PROJECT MDT - LIBBY, MT

0800 - KEITH & I MET W/ CDM PERSONNEL @ THEIR OFFICE. DISCUSS WORK PLAN FOR SAMPLING PIT ON MINE SITE. HOOKED UP POSITIVE PRESSURE UNIT TO VEHICLE. TRAVELED TO SITE; SUITED UP IN DOUBLE TYVEK, KIP FROM MDT-LIBBY TRAVELED W/ CDM UP TO PIT & INDICATED MATERIAL TO BE SAMPLED. COLLECTED 8 SAMPLES FROM PIT WALLS & STOCK PILES - DECON'D VEHICLE & RETURNED TO FRONT GATE WHERE WE REMOVE SUITS, ETC @ DECON UNIT

1130 KEITH SHOWED ME HOW TO USE GPS

PM - SET UP UP 3 RING BINDER FOR NOTES
- RETURNED TO Hwy 567 TO PHOTOGRAPH SAMPLE LOCATIONS ~~WE~~ WERE UNABLE TO GET BECAUSE OF NO SHOTS LEFT ON CAMERA YESTERDAY.

COPIES _____

FIELD OBSERVER Max Lindwood

APPROVED BY _____

REPORT OF: Field Notes - MDT-LIBBYTIME 0745 ^{AM} _{PM} TO 1845 ^{AM} _{PM} HOURS MILEAGE MILES TO MILES TOTALTO _____

_____JOB NO. _____ DATE 7-17-06
DAILY REPORT NO. _____ SHEET _____ OF _____
INVOICE NO. _____PROJECT MDT SAMPLING & ANALYSIS FOR ASBESTOS0745 - TRAVEL TO Hwy 567- TAIL GATE SAFETY MEETING w/ KC0815 - Sample Hwy 567 MILES 3.0 to 4.51030 - MOVE TO Hwy 2 Sample MILES 38.0 to 37.01300 - 1400 LUNCH1400 - 1845 Sample Hwy 2 M.P. 37.0 to 35.0 - RETURN
TO HOTEL

COPIES _____

FIELD OBSERVER W. Underwood

APPROVED BY _____

REPORT OF: FIELD NOTES - MDT - LIBBY, MT.TIME 0800 ^{AM} _{PM} TO 0845 ^{AM} _{PM} HOURS MILEAGE _____ MILES TO _____ MILES _____ TOTAL _____TO _____

_____JOB NO. _____ DATE 7-18-06
DAILY REPORT NO. _____ SHEET _____ OF _____
INVOICE NO. _____PROJECT MDT SAMPLING & ANALYSIS FOR ASBESTOS0800 - SAFETY MEETING w/ Corey VOGT & K. Cron0815 - 1845 Sampled Hwy 2 M.P. 35.0 to 29.01200 - 1300 LUNCH

COPIES _____

FIELD OBSERVER Max Lindwood

APPROVED BY _____

REPORT OF: FIELD NOTESTIME 0800 ^{AM} ~~PM~~ TO 1900 ^{AM} ~~PM~~ 1040 HOURS MILEAGE _____ MILES TO _____ MILES TOTAL _____

TO _____

JOB NO. _____ DATE 7-19-06

DAILY REPORT NO. _____ SHEET _____ OF _____

INVOICE NO. _____

PROJECT MST SAMPLING & ANALYSIS FOR ASBESTOS0800 - TAILGATE SAFETY MEETING w/ VOGT & KRON0815 - 1000 SOIL SAMPLING MP 29 to 28 Hwy 21000 - MOVE TO Hwy 37 Sample MP 5.5 to 7.01200 - 1300 LUNCH1300 - ~~1200~~ 1900 SOIL SAMPLES MP 7.0 to 9.5- RETURN TO MOTEL - LOG SAMPLES

COPIES _____

FIELD OBSERVER Max Underwood

APPROVED BY _____

REPORT OF: FIELD NOTES

TIME _____ AM _____ PM TO _____ AM _____ PM HOURS _____ MILEAGE _____ MILES TO _____ MILES _____ TOTAL _____

TO _____

JOB NO. 6561296 ¹⁰⁰ DATE 7-20-06

DAILY REPORT NO. _____ SHEET _____ OF _____

INVOICE NO. _____

PROJECT MDT SAMPLING & ANALYSIS FOR ASBESTOS0800 - WORKED ON ^{SOIL} SAMPLES - PACKING & CHAIN OF CUSTODIES1400 - MEET W/ VAN & ESTABLISHED SCHEDULE FOR NEXT WEEK'S AIR MONITORING WHICH WILL START WEDNESDAY. VAN WILL BE AVAILABLE TOMORROW FOR PIT SAMPLING FROM ABOUT 8 AM- CONTINUED W/ SAMPLE PACKING & CHAIN

COPIES _____

FIELD OBSERVER Max Lindwood

APPROVED BY _____

NOTES FROM 7-20-06

4 MEN ON ALL JOBS

2 FLAGGERS

JULY

MT. 37 AIR / SOIL MONITORING

1.) MOWING: ⑥ THURS PM

LOCATIONS 0.8 TO 2.4

5.4 TO 7.4 — ⑦ FRI AM

W/ WATER FOLLOWING FOR PREVENTION OF FIRE

2.) DITCHING: ② WED AM ④ THURS AM
LOCATIONS 5.3 / 9.0 UP WIND & DOWN WIND AREA MON.?
LOADER & TRUCK OPERATORS① START WED AM ON THIS
3.) GUARDRAIL REPAIR: BACKHOE & 1 TON
LOCATION 6.4 50' 4 MEN③ WED PM 4.) BROOMING: ⑤ THURS PM 4.0 ⑧ FRI PM
LOCATIONS 2.4 TO 5.8 WET BROOM

W/ BROOM BEAR & ELGIN & WATER (HAUL TO JENNINGS AT SAMPLE?)

5.) 1 TON DRIVER ON SHOULDER & VARIOUS R/W'S
SIMULATION OF CARCASS REMOVAL & SIGN
REPAIRS, ETC.

— DO WHILE CREW IS RESTING THROUGHOUT DAY

Q & A:AIR MONITORING PROCEDURE —

EQUIPMENT: _____

PERSONA _____

1/2



REPORT OF: _____

TIME _____ AM _____ PM TO _____ AM _____ PM HOURS MILEAGE _____ MILES TO _____ MILES _____ TOTAL

TO _____

JOB NO. _____ DATE 7-21-06

DAILY REPORT NO. _____ SHEET _____ OF _____

INVOICE NO. _____

PROJECT MDT - LIBBY SECTION

COMPLETED PACKING SOIL SAMPLES INCLUDING
THOSE FROM YESTERDAY & TODAY- TRAVELED FROM LIBBY TO MISSOULA ^{MAXIM OFFICE} DROPPED
SAMPLES FOR SHIPMENT TO CDM - CLOSE
SUPPORT FACILITY

214 WALNUT STREET, DENVER, CO 80202

CHARGED TO FEDEX 1230-7360-6

- TRAVELED MISSOULA TO BILLINGS

COPIES _____

FIELD OBSERVER Max Underwood

APPROVED BY _____



REPORT OF: _____

TIME _____ AM TO _____ AM PM 10.0 HOURS MILEAGE _____ MILES TO _____ MILES _____ TOTAL

TO _____

_____JOB NO. 6561296.100 DATE 7-25-06
DAILY REPORT NO. _____ SHEET _____ OF _____
INVOICE NO. _____

PROJECT MDT - LIBBY SECTION

1300 - 2300 TRAVEL BILLINGS TO LIBBY

COPIES _____

FIELD OBSERVER

May Underwood

APPROVED BY _____

REPORT OF: MDT AIR MONITORING GUARDRAIL REPLACEMENTTIME 0630 ^{AM} PM TO 15:00 ^{AM} PM 8.5 HOURS MILEAGE 53281 MILES TO _____ MILES _____ TOTALTO _____

_____JOB NO 6561296100 DATE 1-26-06
DAILY REPORT NO. _____ SHEET _____ OF _____
INVOICE NO. _____PROJECT MDT-LIBBY SECTION0650 - ARR @ MDT FACILITY ON HWAY 2

- CALIBRATE GILIAN BDX II AIR SAMPLING PUMPS
(SPEC IN PROPOSAL IS 3.0 LITERS/MIN BUT PUMPS
WILL ONLY DRAW AROUND 2.0 W/ TEM CASSETTES)
- VAN ARRIVES AND INFORMS ME THAT THEY DIDN'T HAVE
TIME TO PREP YESTERDAY SO WE WON'T BE ABLE TO
START UNTIL THAT IS DONE.

0920 - LV SHOP0935 - ARR @ MI. 6.4 ^{TURNOUT ON} HWAY 37 - TASK IS

- SET UP PUMPS ON EQUIP & PERSONNEL

1020 - EQUIP. MOVES TO GUARD RAIL REPAIR LOCATION1145 - " RETURNS TO PULL OUT RETRIEVE PUMPS FROM
BACKHOE & CREW - RUN POST MONITORING CALIBRATIONS

- VAN SWEARINGER WANTS TO SPEND THIS AFTERNOON
GETTING READY FOR TOMORROW

1230 RETURN TO MOTEL COMPLETE TODAY'S PAPER WORK
RECHARGE PUMPS - CAL. PUMPS & SET UP FOR
TOMORROW.

COPIES _____

FIELD OBSERVER Max Underwood

APPROVED BY _____

AIR SAMPLE COLLECTION

Project: MDT Libby Air Sampling	Project No.: 1156561296.100
Technician: MAX LINDERWOOD	Date: 7-26-06
Location: HWAY 37, mi 6.4; GUARDRAIL REPLACEMENT	Calibration Instrument: DCL
	Checked By:

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and sampling procedures

Sample Number	Sample Description And Location	Pump ID	Start Time	Stop Time	Total Minutes	PRECALIBRATION			PRE Average Flow	POST CALIBRATION			POST Average Flow	Volume (liters)
						Test 1	Test 2	Test 3		Test 1	Test 2	Test 3		
1	BACKHOE FRONT	455	0953	1147	114	1.906	1.906	1.904	1.905	1.867	1.868	1.869	1.868	213
2	REAR	190	0953	1147	114	1.900	1.900	1.899	1.900	1.850	1.850	1.852	1.851	211
3	LEFT	324	0954	1147	113	1.637	1.637	1.638	1.637	1.616	1.622	1.624	1.621	183
4	RIGHT	519	0954	1147	113	1.960	1.958	1.955	1.958	1.935	1.937	1.941	1.938	219
5	PERSONAL DAVE NOBLE	372	1000	1153	113	2.063	2.061	2.059	2.061	2.080	2.079	2.080	2.080	233
6	SCOTT THOMPSON	050	1007	1151	104	1.771	1.771	1.771	1.771	1.724	1.725	1.726	1.725	179
7	KIP NIXON	303	1013	1155	102	2.040	2.037	2.038	2.038	1.982	1.986	1.986	1.985	189
8	VAN SWEARINGEN	337	1018	1158	100	2.080	2.079	2.079	2.079	2.001	2.001	2.001	2.001	200
9	BLANK	—	—	—	—	—	—	—	—	—	—	—	—	—

REPORT OF: Air & Soil SamplingTIME 0645 ^{AM} _{PM} TO ^{AM} _{PM} HOURS MILEAGE MILES TO MILES TOTALTO

 JOB NO. DATE 7-27-06
DAILY REPORT NO. SHEET 1 OF 2
INVOICE NO. PROJECT MDT - LIBBY SECTION0645 - TRAVEL TO OSPREY LANDING ON HWY 37 - GUARDRAIL
REPLACEMENT @ MI 8.50700 - ARR @ SITE - CALIBRATE PUMPS & DISTRIBUTE
TO CREW & BACK HOE. USED SAME CASSETTES AS
YESTERDAY TO GET MORE VOLUME ON SAMPLE0740 - CREW LEAVES LANDING0820 - CREW ARR BACK @ LANDING - DECON EQUIPMENT
THIS FINISHES TASK OF GUARDRAIL REPAIR
- SET UP PUMPS ON BEAR BROOM1035 - BEGIN BROOMING HWY 37 MP 2.3 BEGINNING
@ FLORENCE ROAD AND ENDING @ RAINY CREEK,
MP 5.51150 - CHECK CASSETTES & PUMPS - PUMP ON REAR
OF BEAR BROOM NOT RUNNING - FILTER IS STILL
WHITE. LEFT & RIGHT SIDES SHOWING BROWN
FROM DUST. FIXED PUMP ON REAR. SWITCHED ON
CASSETTES ON BOTH SIDES - FRONT CASSETTE LOOKS
OKAY1300 - BEAR BROOM BREAKS DOWN W/ HYDRAULIC PROBLEM
REMOVE MONITORING EQUIPMENT FROM BEAR
BROOM & SCOTTCOPIES FIELD OBSERVER May UnderwoodAPPROVED BY

REPORT OF: Air & Soil Sampling

TIME _____ AM _____ PM _____ TO _____ AM _____ PM _____ HOURS _____ MILEAGE _____ MILES TO _____ MILES _____ TOTAL _____

TO _____

_____JOB NO. _____ DATE 7-27-06
DAILY REPORT NO. _____ SHEET 2 OF 2
INVOICE NO. _____PROJECT MDT - LIBBY SECTION

1320 - SET UP MONITORING EQUIP ON ELGIN BROOM

1335 - ELGIN BEGINS ~~SWEEPING~~ @ MI 4.51415 - TAKE COMPOSITE SOIL SAMPLE OF BROOMED
MATERIAL DUMP PILES FROM MI 2.3 TO 4.61445 - ELGIN BROOM STARTS 2ND PASS BETWEEN
MI 5.0 & 5.51515 - TAKE COMPOSITE SOIL SAMPLE OF SWEEPINGS
FROM MI ~~3.4.6~~ TO 5.51530 - ARRIVE MOTEL - DECON EQUIP - CHARGE PUMPS -
COMPLETE DAILY PAPER WORK

COPIES _____

FIELD OBSERVER Max Underwood

APPROVED BY _____

AIR SAMPLE COLLECTION

Project: MDT Libby Air Sampling	Project No.: 1156561296.100
Technician: MAX UNDERWOOD	Date: 7-27-06
Location: Highway 37, mi 8.5, GUARD RAIL REPLACEMENT	Calibration Instrument: DCL
	Checked By:

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and sampling procedures

* USED SAME CABBETTES AS YESTERDAY

Sample Number	Sample Description And Location	Pump ID	Start Time	Stop Time	Total Minutes	PRECALIBRATION			PRE Average Flow	POST CALIBRATION			POST Average Flow	Volume (liters)
						Test 1	Test 2	Test 3		Test 1	Test 2	Test 3		
072606-37-8.5-1	BACKHOE FRONT	455	0735	0845	70	2.041	2.043	2.043	2.042	2.012	2.010	2.009	2.010	141
2	REAR	190	0736		69	1.948	1.943	1.927	1.939	1.997	2.000	2.001	1.999	134
3	LEFT	324	0737		68	1.760	1.756	1.758	1.758	1.724	1.725	1.725	1.725	117
4	RIGHT	519	0738	✓	67	2.033	2.030	2.029	2.031	2.020	2.019	2.018	2.019	135
5	PERSONAL DWENOBLE	372	0732	1028	176	2.116	2.113	2.114	2.114	2.097	2.095	2.096	2.096	369
6	SCOTT THOMPSON	050	0725		183	1.870	1.866	1.865	1.867	1.960	1.959	1.961	1.960	342
7	KIP NIXON	303	0724		184	2.135	2.133	2.132	2.133	2.107 2.170	2.110	2.110	2.109	388
8	VAN SWEARINGEN	337	0734	✓	174	2.161	2.159	2.159	2.160	2.183	2.185	2.184	2.184	376
9	BLANK	—	—	—	—	—	—	—	—	—	—	—	—	—

AIR SAMPLE COLLECTION

Project: MDT Libby Air Sampling	Project No.: 1156561296.100
Technician: MAX UNDERWOOD	Date: 7-27-06
Location: Highway 37	Calibration Instrument: DCL-5718
	Checked By:

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and sampling procedures

Sample Number	Sample Description And Location	Pump ID	Start Time	Stop Time	Total Minutes	PRECALIBRATION			PRE Average Flow	POST CALIBRATION			POST Average Flow	Volume (liters)
						Test 1	Test 2	Test 3		Test 1	Test 2	Test 3		
10	SWEEDING BEAR BROOM FRONT	455	0942	1307	205	2.113	2.112	2.112	2.112	2.077	2.073	2.074	2.075	425
11	REAR	519	0942	1153	131	2.258	2.259	2.259	2.259	2.099	2.099	2.098	2.099	285
12	LEFT	048	0942	1158	136	1.987	1.993	1.988	1.989	2.042	2.041	2.040	2.041	274
13	RIGHT	045	0942	1158	136	1.963	1.969	1.971	1.968	2.049	2.049	2.047	2.048	273
14	PERSONAL SCOTT THOMPSON	282	1032	1310	158	1.784	1.775	1.776	1.778	1.897	1.892	1.889	1.893	281
15	REAR	519	1153	1307	74				2.259				2.099	161
16	LEFT	048	1158	1307	69				1.989				1.989	139
17	V RIGHT	045	1158	1307	69				1.968				1.968	139
18	SWEEDING ELGIN BROOM FRONT	455	1334	1507	93	2.148	2.140	2.149	2.146	2.271	2.270	2.266	2.269	200
19	REAR	519	1334	1507	93	2.357	2.353	2.354	2.355	2.387	2.383	2.381	2.384	219
20	LEFT	048	1334	1507	93	2.232	2.230	2.229	2.230	2.268	2.267	2.266	2.267	207
21	RIGHT	045	1334	1507	93	2.033	2.031	2.036	2.033	2.246	2.244	2.244	2.245	189
22	- CAB DAVE NOBLE	346	1338	1507	89	2.282	2.271	2.271	2.275	2.410	2.430	2.430	2.423	202

23 BLANK



REPORT OF: AIR MONITORING
& SOIL SAMPLING

TIME 0630 ^{AM} PM TO 1700 ^{AM} PM 10.5 HOURS MILEAGE _____ MILES TO _____ MILES _____ TOTAL

TO _____

JOB NO. 6561296.100 DATE 7-28-06

DAILY REPORT NO. _____ SHEET 1 OF 2

INVOICE NO. _____

PROJECT MDT - LIBBY SECTION

0630 - 0645 - TRAVEL MOTEL TO SANDERSON PIT ON HWY 37

0645 - CALIBRATE PUMPS FOR LOADER & PERSONNEL

0730 - VAN SWEARINGER ARRIVES @ SITE - TASK TODAY

WILL INCLUDE REMOVAL OF BOULDERS & SCREE

FROM DITCH ON SLOPE & CLIFF SIDE OF HWY 37

BETWEEN MI 4.3 TO 5.5, THEN MOWING BOTH SIDES
OF HWY 37 FROM MI 0.8 TO 4.3.

- FLAT TIRE ON DUMP TRUCK DELAYS START

0825 - DITCHING BEGINS @ MI 5.5 WORKING TO 4.3

- TRUCKS HAUL MATERIAL TO PIPE CREEK RD TURNOUT

1100 - DITCHING COMPLETED -

1130 - SAMPLE MATERIAL (COMPOSITE) FROM DUMP
PILES @ PIPE CREEK RD TURNOUT

1145 - SET UP ^{AIR} MONITOR ON RIGHT EXTERIOR OF PILOT
TRUCK WHICH WILL FOLLOW BEHIND MOWER &
WATER TRUCK. (WATER BEING SPRAYED BEHIND
MOWER FOR FIRE PREVENTION.)

- PLACE MONITORS ON FRONT, BACK, LEFT & RIGHT
OF MOWER, ON DAVE NOBLE, OPERATION

1250 - SWITCH CASSETTES ON EXTERIOR OF MOWER

- REAR CASSETTE IS OVER LOADER - DISCONTINUE

COPIES _____

FIELD OBSERVER MEU

APPROVED BY _____



REPORT OF: _____

TIME _____ AM _____ PM TO _____ AM _____ PM HOURS _____ MILEAGE _____ MILES TO _____ MILES _____ TOTAL _____

TO _____

_____JOB NO. _____ DATE 7-28-06
DAILY REPORT NO. _____ SHEET 2 OF 2
INVOICE NO. _____

PROJECT MDT-LIBBY SECTION

REAR CASSETTE MONITOR

~1300 - MOWER BLOWS HYDRAULIC LINE - NEW LINE

1335 - DELIVERED & INSTALLED

- WAIT FOR WATER TRUCK TO RETURN FROM
REFILLING1345 - RESUME MOWING, SANDERSON PIS mi 4.3 to
mi 0.81425 - END MONITORING - ~~STOPPED~~- RETURNED TO MOTEL - COMPLETED PAPER
WORK, DECON EQUIP, BOXED SAMPLES

1700 - FINISH

COPIES _____

FIELD OBSERVER

APPROVED BY

AIR SAMPLE COLLECTION

Project: MDT Libby Air Sampling	Project No.: 1156561296.100
Technician:	Date: 7-28-06
Location: Highway 37.	Calibration Instrument: DCL-5718
	Checked By:

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and sampling procedures

Sample Number	Sample Description And Location	Pump ID	Start Time	Stop Time	Total Minutes	PRECALIBRATION Test 1 Test 2 Test 3			PRE Average Flow	POST CALIBRATION Test 1 Test 2 Test 3			POST Average Flow	Volume (liters)
-24	CASE 621 D LOADER-DITCHING FRONT	282	0744	1059	195	2.126	2.122	2.118	2.122	2.040	2.045	2.050	2.045	399
-25	REAR	303	0744	1059	195	2.396	2.394	2.391	2.394	2.213	2.214	2.215	2.214	432
-26	LEFT	372	0745	1059	194	2.318	2.313	2.314	2.315	2.250	2.254	2.256	2.253	437
-27	✓ RIGHT	337	0745	1059	194	2.440	2.439	2.439	2.439	2.388	2.390	2.393	2.390	464
-28	PERSONAL KIP NIXON	346	0751	1057	188	2.380	2.378	2.374	2.377	2.291	2.289	2.286	2.289	430
-29	MOWING PILOT TRUCK	045	1148	1252	64	2.240	2.238	2.241	2.240				AVG (2.193)	140
-30	BLANK	—	—	—	—	—	—	—	—	—	—	—	—	—
-31	MOWER CAB DAVE NOBLE	455	1158	1422	144	2.394	2.403	2.411	2.403	2.369	2.364	2.361	2.365	341
-32	MOWER FRONT	337	1158	1252	54	2.457	2.458	2.459	2.458				AVG (2.420) 2.381	131
-33	REAR	372	1158	1251	53	2.376	2.382	2.382	2.380	2.308	2.303	2.301	2.304	122
-34	LEFT	303	1158	1252	54	2.491	2.491	2.493	2.492				AVG (2.361) 2.230	127
-35	RIGHT	282	1158	1252	54	1.994	1.992	1.986	1.991				AVG (1.927) 1.863	104
-36	✓ PILOT TRUCK	045	1252	1422	90					2.145	2.148	2.143	2.145	197

AIR SAMPLE COLLECTION

Project: MDT Libby Air Sampling	Project No.: 1156561296.100
Technician: MAX UNDERWOOD	Date: 7-28-06
Location: HWAY 37	Calibration Instrument: DCL-5718
	Checked By:

Please refer to the Sampling and Analysis Plan (SAP) for selection of sample location and sampling procedures

Sample Number	Sample Description And Location	Pump ID	Start Time	Stop Time	Total Minutes	PRECALIBRATION			PRE Average Flow	POST CALIBRATION			POST Average Flow	Volume (liters)
						Test 1	Test 2	Test 3		Test 1	Test 2	Test 3		
37	MOWER FRONT	337	1252	1422	90				2.458	2.383	2.380	2.381	AVG (2.420) 2.381	218
38	LEFT	303	1252	1422	90				2.492	2.233	2.229	2.228	AVG (2.361) 2.230	212
39	RIGHT	282	1252	1422	90				1.991	1.868	1.861	1.860	AVG (1.927) 1.863	173
40	BLANK	—	—	—	—	—	—	—	—	—	—	—	—	—



REPORT OF: _____

TIME 0800 ^{AM} PM TO 2000 ^{AM} PM 12.0 HOURS MILEAGE 53385 MILES TO 53936 MILES 551 TOTALTO _____

_____JOB NO. 6561296.100 DATE 7-29-06

DAILY REPORT NO. _____ SHEET _____ OF _____

INVOICE NO. _____

PROJECT MDT - LIBBY SECTION0800 - 0830 - CALLED VAN SWERRINGER AND ARRANGED
TO LEAVE HIS TOOLS @ MDT FACILITY0830 - LV LIBBY1400 - BLEW O-RING ON ENGINE BLOCK HEATER* GOING OVER PASS EAST OF BUTTE, REPAIRED
@ WHITE HALL1700 - 2000 CONTINUED TO BILLINGS

COPIES _____

FIELD OBSERVER May Underwood

APPROVED BY _____

APPENDIX G
COMPACT DISK OF FIELD PHOTOGRAPHS

TARGET SHEET
EPA REGION VIII
SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOCUMENT NUMBER: 1074319

SITE NAME: LIBBY ASBESTOS

DOCUMENT DATE: 02/21/2007

DOCUMENT NOT SCANNED

Due to one of the following reasons:

- ☐ PHOTOGRAPHS
- ☐ 3-DIMENSIONAL
- ☐ OVERSIZED
- ☒ AUDIO/VISUAL
- ☐ PERMANENTLY BOUND DOCUMENTS
- ☐ POOR LEGIBILITY
- ☐ OTHER
- ☐ NOT AVAILABLE
- ☐ TYPES OF DOCUMENTS NOT TO BE SCANNED
(Data Packages, Data Validation, Sampling Data, CBI, Chain of Custody)

DOCUMENT DESCRIPTION:

APPENDIX G 1 - CD OF FIELD PHOTOGRAPHS

APPENDIX H
COMPACT DISK OF LABORATORY REPORTS

TARGET SHEET
EPA REGION VIII
SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOCUMENT NUMBER: 1074319

SITE NAME: LIBBY ASBESTOS

DOCUMENT DATE: 02/21/2007

DOCUMENT NOT SCANNED

Due to one of the following reasons:

- ☐ PHOTOGRAPHS
- ☐ 3-DIMENSIONAL
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- ☐ OTHER
- ☐ NOT AVAILABLE
- ☐ TYPES OF DOCUMENTS NOT TO BE SCANNED
(Data Packages, Data Validation, Sampling Data, CBI, Chain of Custody)

DOCUMENT DESCRIPTION:

APPENDIX H 1 - CD OF LABORATORY REPORTS

**APPENDIX I
REFERENCES**

References

- Camp, Dresser, McKee, 2005. Contaminant Screening Study, Libby Asbestos Site, Operable Unit 4, Libby, Montana. Final Summary Report for the J. Neils Park and Montana State Highway 37 Investigations, Revision I. December 15.
- Maxim, 2006. Work Plan and Cost Estimate for Asbestos Consulting and Industrial Hygiene Services in the Libby Area, Lincoln County, Montana. Task Order No. 605. May 22.
- MDT, 2006a. Task Order No. 605, Request for Asbestos Sampling, Analysis, and Related Industrial Hygiene Services in the Libby Area, Lincoln County, Montana. April 8.
- MDT, 2006b. Task Order No. 605, Request for Asbestos Sampling, Analysis, and Related Industrial Hygiene Services in the Libby Area, Lincoln County, Montana. May 26.